

DOCUMENT RESUME

ED 316 856

CS 009 991

TITLE Educational Publishing: Experiences from Asia and the Pacific.

INSTITUTION United Nations Educational, Scientific and Cultural Organization, Bangkok (Thailand). Asian Centre for Educational Innovation for Development.

PUB DATE 86

NOTE 260p.; Asia and the Pacific Programme of Educational Innovation for Development.

PUB TYPE Collected Works - Conference Proceedings (021) -- Reports - General (140)

EDRS PRICE MF01/PC11 Plus Postage.

DESCRIPTORS Case Studies; *Developing Nations; *Educational Development; Foreign Countries; Instructional Materials; Material Development; Publications; Resource Materials; *Textbook Publication

IDENTIFIERS Educational Information; Philippines (Manila); Thailand (Bangkok); Tonga

ABSTRACT

This resource book on educational publishing presents examples of evaluation and planning; try-out procedures; the production process; and warehousing and distribution, all reinforced by examples of systems and structures and case studies which were presented at the 1985 Manila and Tonga Seminars. Part one, Planning, Try-out and Evaluation of Educational Materials, covers evaluating needs, planning and budgeting, manuscript preparation, and trial editions. Part two, The Production Process, discusses editing and editorial management, paper procurement, production of printed materials, and pre-qualification procedures for printers and printing costs. Warehousing and Distribution, part three, discusses educational materials distribution, and book promotion and marketing. Part four, Some Case Studies, reinforces previous information with case studies and examples. (MG)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED316856

APEID

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☐ This document has been reproduced as
received from the person or organization
originating it.

☐ Minor changes have been made to improve
reproduction quality.

* Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.

Experiences from Asia and the Pacific

BEST COPY AVAILABLE

2

Unesco. Regional Office for Education in Asia and the Pacific.
Educational publishing - experiences from Asia and the Pacific; Manila and Tonga Seminars on Textbook Production and Distribution. Bangkok, 1986.

246 p. (Asia and the Pacific Programme of Educational Innovation for Development)

1. INSTRUCTIONAL MATERIALS - ASIA/PACIFIC.
2. INSTRUCTIONAL MATERIALS - PRODUCTION - HANDBOOKS.
3. BOOK INDUSTRY - HANDBOOKS - ASIA/PACIFIC.
4. BOOK PRODUCTION - ASIA/PACIFIC.
5. BOOK DISTRIBUTION - ASIA/PACIFIC. I. Title. II. Series.

371.32



CS

APEID

Asia and the Pacific Programme
of Educational Innovation for Development

EDUCATIONAL PUBLISHING

Experiences from Asia and the Pacific



UNESCO REGIONAL OFFICE
FOR EDUCATION IN ASIA AND THE PACIFIC
Bangkok, 1986

16660057
CS009991

© Unesco 1986

Published by the
Unesco Regional Office for Education in Asia and the Pacific
P.O. Box 1425, General Post Office
Bangkok 10500, Thailand

Printed in Thailand

The designations employed and the presentation of material throughout the publication do not imply the expression of any opinion whatsoever on the part of Unesco concerning the legal status of any country, territory, city or area or of its authorities, or concerning its frontiers or boundaries.

PREFACE

Within the framework of the UNESCO Regional Office for Education in Asia and the Pacific (ROEAP), the Asia and the Pacific Programme of Educational Innovation for Development (APEID), through its Asian Centre of Educational Innovation for Development (ACEID), has convened a number of seminars and workshops related to textbook and educational materials development for primary education in Asia and the Pacific since 1983.

Twenty-four countries represented by 73 participants and observers were involved in the programmes listed in chronological order below:

Seminar on Textbooks and Reading
Materials, Wellington, New Zealand,
4 - 12 October 1983;

Workshop on the Development of
Systems and Structures for
Producing Textbooks and Other
Related Teaching/Learning Materials,
Bangkok, Thailand, 17 - 27
September 1984;

Seminar on Production and
Distribution of Textbooks and Other
Related Teaching/Learning Materials,
Manila, Philippines, 12 - 22 August

1985; and
Seminar on Production and
Distribution of Textbooks and Other
Related Teaching/Learning Materials,
Nuku'alofa, Tonga, 26 August - 5
September 1985.

Many valuable contributions, in the form of background and information papers, were submitted at the 1985 Manila and Tonga Seminars. The view was expressed at both Seminars that these examples of evaluation and planning; try-out procedures; the production process; and warehousing and distribution, reinforced by examples of systems and structures and case studies, might be presented in another volume. That is what this resource book attempts to do.

CONTENTS

Part One - PLANNING, TRY-OUT AND EVALUATION OF EDUCATIONAL MATERIALS

Chapter One:	Evaluating the needs	1
	Providing appropriate materials - the Pacific perspective	
	Using supplementary readers - Thailand	
	Identifying needs in New Zealand	
	Effects of textbooks on learning - the Filipino experience	
Chapter Two:	Planning and budgeting	15
	Curriculum and materials planning in Papua New Guinea	
	Budgeting and resource manage- ment - IMC	
	Procedures in planning - New Zealand	
	Further aspects of planning	
Chapter Three:	Manuscript preparation	36
	Importance of learning materials	
	Materials preparation - Thailand	
	Curriculum committees/project teams - New Zealand	

CONTENTS (cont'd)

Chapter Four:	Trial Editions	43
	Formative evaluation in the Philippines	

Part Two - THE PRODUCTION PROCESS

Chapter Five:	Editing and editorial management	49
	The editorial process	
	Developing materials in China	
Chapter Six:	Paper procurement	55
	Choosing the right paper	
	Assuring supply at preferential prices - China	
Chapter Seven:	Production of printed materials	61
	Work of the Production Division - IMC	
	Procedures for production - New Zealand	
	Scheduling, preparation and production	
	Production process - New Zealand	
	Production processes/specifi- cations	

CONTENTS (cont'd)

Chapter Eight:	Pre-qualification procedures for printers and printing costs	75
----------------	--	----

Purpose of pre-qualification
Assessing printing costs - Sri Lanka

Part Three - WAREHOUSING AND DISTRIBUTION

Chapter Nine:	Educational materials distribution	81
---------------	------------------------------------	----

An outline of distribution considerations

The textbook distribution programme - IMC

Assessment of distribution procedures

Distribution and warehousing - Australia

The role of School Publications and the GPO in New Zealand

Geographical constraints in Papua New Guinea

Chapter Ten:	Book promotion and marketing	109
--------------	------------------------------	-----

CONTENTS (cont'd)

Part Four - SOME CASE STUDIES

Chapter Eleven:	The Philippines Textbook Project	113
Chapter Twelve:	Pricing policy at the JEMC	140
Chapter Thirteen:	Support materials development at ISMED	148
Chapter Fourteen:	Publishing for min- ority groups	153
Chapter Fifteen:	Gathering feedback for try-out materials	162
Chapter Sixteen:	Publishing guidelines	197
Chapter Seventeen:	Monitoring distri- bution (a pictorial report)	226
References		240

Part One

PLANNING, TRY-OUT AND EVALUATION
OF EDUCATIONAL MATERIALS

Chapter One

EVALUATING THE NEEDS

Initial evaluation. When the planning for any educational materials development programme is in its initial stages, many countries may decide to look at the whole range of teaching/learning materials possibilities rather than the production of textbooks alone. As a result, some countries do not produce textbooks for the first two years of school, while others do not prescribe textbooks for the whole of the first (or primary) level of education. Therefore 'evaluation', in the sense that such a basic decision must first be made, is discussed here ahead of 'planning'. Of course other evaluations will take place as the materials are developed, and examples of these are described later in this chapter.

* * * * *

Providing appropriate materials - the Pacific perspective

by R.J. Bishop, Fellow, Institute of Education, The University of the South Pacific, Alafua Campus, Samoa

Following the provision of new syllabuses and teachers' guides, the phase or point, along the path of school development which countries in the South Pacific seem now to have reached, in curriculum terms, is the development and provision of materials that can be placed in the hands of the pupils. Reading texts are seen by many regional curriculum developers as the priority need. This being so, and given the severe financial constraints with which this is to be achieved, a single, standardized subject text seems an attractive means (and may prove in the immediate future the only feasible means) of achieving some individualized learning, and a way of diversifying learning experiences in primary classes. Some advantages and disadvantages of single subject texts are outlined on the next page.

A major problem that all Pacific Island education systems now face is one of improving learning processes in order to raise educational standards, yet reduce the

A major problem ... is one of improving learning processes in order to raise educational standards, yet reduce the costs of educational materials...

costs of educational materials, or at least reduce the rate of increase in production costs. Two fundamental questions need to be addressed in the context of this objective:

1. Do pupil's texts in fact provide the best learning process at every level of the primary system?

2. Are textbooks more critical to the learning processes at some levels rather than others?

ADVANTAGES

- * ensures that important concepts are available to the pupils
- * a wider range of question types can be posed
- * pupils are assured of exposure to at least a minimum amount of content material

DISADVANTAGES

- * texts are usually written at one reading level
- * promotes a single learning mode (reading)
- * it is assumed that all pupils react positively to the text and can learn successfully through reading

Evidence already exists in two South Pacific countries that at the early primary levels, Classes I and II, where the learning approach utilises themes incorporating topics related to the immediate environment and

pupils' experiences, teachers are quite capable of generating much of their own language material in sufficient quantities to meet the learning needs of their pupils.

In such circumstances, materials like paper, markers, cardboard and scissors become more appropriate than printed texts from an education department printery. Pupils themselves have the opportunity to

Do pupil's texts in fact provide the best learning process at every level of the primary system?

display stories for sharing with their peers; older pupils can produce stories for the younger pupils to share with them; teachers can craft big picture books to share with the entire class. Soon quite large stocks of varied material, both fictitious and factual, can be built up and preserved to form class libraries. The impact on the learning environment is immense, and the vital communication function of language is immeasurably enhanced.

Such strategies adopted at the lower primary school levels releases resources that

In such circumstances, materials like paper, markers, cardboard and scissors become more appropriate than printed texts...

can be applied to the production of more traditional texts at later levels (for example Classes IV and V in the primary system) when the reading competencies pupils have acquired at the earlier stages need to be applied extensively across as wide a range of reading materials as possible.

* * * * *

Using supplementary readers - Thailand

by Siri Siributr, Director, Book Development Centre,
DCID, Ministry of Education, Bangkok, Thailand

In developing the new curriculum and learning materials, especially at the primary level, some subject areas such as Life Experiences, Character Development and Work-Oriented Experiences do not require textbooks. Rather, teaching plans and supplementary readers are vital.

For subjects that do require textbooks, using only textbooks is simply not enough, and schools are now encouraged to make use of supplementary readers. The present day textbooks have become not quite as adequate

For subjects that do require textbooks, using only textbooks is simply not enough...

[as repositories of all information] as they were in the past. Schools that may insist on

students having and buying their own textbooks, should nevertheless provide the students with supplementary readers in their school libraries.

* * * * *

Identifying needs in New Zealand

by Michael Keith, Education Officer (Publications),
Department of Education, Wellington, New Zealand

Planning and policies relating to the provision of textbooks and reading materials are first of all considered in the context of all resources for learning; that is, for all materials designed to support the curriculum and wider educational functions of the school. The principles and procedures in planning apply to all resources for learning, whether they are textbooks, or other kinds of publications, audio-visual materials, or computer courseware.

The process of assessing needs does not have as a predetermined outcome the provision of new resources for learning. Rather, it is the principle of evaluation at work at all levels of the education system, and among the community it serves. The primary purpose of the process is to identify needs and to assess the most appropriate means of meeting them. The outcomes might

The principles and procedures in planning apply to all resources for learning...

be, for example, a new emphasis in the training of teachers; a major reshaping of a syllabus, with a major resources development as a consequence; or a focus on better organization and use of existing resources.

The impetus for the process might come, say, from teachers associated with professional organizations, or a group of curriculum specialists and advisers, or a community group. The scale of the response, at a national level, might range from a major review of curriculum instigated by the Minister, to a research contract on how well fourteen-year-olds cope with the reading demands of textbooks, to the gathering of a working party of teacher-librarians to develop a booklet guiding schools in the better management of their libraries as resource centres.

In matters concerning the curriculum, its review, development, or maintenance, the Curriculum Development Division, in co-operation with other divisions in the department, co-ordinates the process of identifying and assessing needs.

* * * * *

Curriculum
review:
Why and how?

Effects of textbooks on learning - the Filipino experience

by Delia Moya, Officer-in-Charge, Training and
Evaluation Division, IMC, University of the Philippines,
Quezon City,

[The Philippines Textbook Project was launched in 1976, through the Textbook Board Secretariat (TBS). By Presidential Decree, the TBS became an autonomous body under the name Instructional Materials Corporation (IMC) in 1985. A case study of the development of this project is given in Chapter Ten.]

Objectives. An aspect of the evaluation undertaken by the National Textbook Project during the first eight years of its existence is the assessment of the effects of the books it produced and distributed on pupil achievement. Twenty-two titles representing elementary and secondary titles in Communication Arts English and Pilipino, mathematics, science and social studies were included in the assessment.

These evaluative studies were primarily conducted to determine if the expected positive effects of Project textbooks on achievement of intended school learning outcomes would be supported by empirical data in the field. In addition, extant data culled from these studies were used to provide tentative answers to certain questions. These included the relationships between achievement and some factors

descriptive of schools, teachers and pupils, and the contribution of the textbooks in minimizing existing disparities in achievement among school children due to family circumstances.

Description of procedures. Sources of data on achievement were school children from the primary and intermediate grades and high school. Data on school factors,

For every textbook evaluated, a separate achievement test was constructed and validated ...

teachers and pupil background were obtained from the childrens' homeroom advisers. The teachers' evaluative comments on the textbooks were also collected for some titles. Some 38,000 school children were tested throughout the Philippines between 1976 and 1985. School selection was done by considering a general representation of factors including geographical location and language background.

For every textbook evaluated, a separate achievement test was constructed and validated under the supervision of the Project. The test items were based not on the books, but on the learning objectives for given subjects and grade levels as stipulated by the Ministry of Education, Culture and Sports (MECS). Construction, try-out and validation procedures were undertaken by

Measuring
achievement

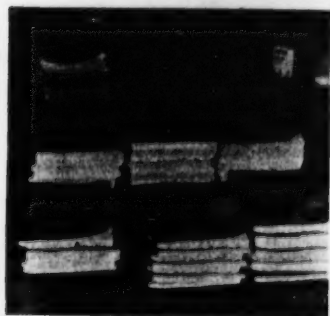
selected teachers, content specialists and test construction experts. For each test, evidence of validity and reliability was documented. The gathering of all the data was undertaken with the support of the Regional, Division and District Offices of MECS; forming a testing network that became institutionalized in 1976.

Data collection

Data collection for 75 per cent of the evaluative studies conducted, employed the 'control-experimental comparison groups' design. This consisted of two cohort groups: the first being the control, or non-project, group comprising pupils who used non-Project textbooks with a mode of ten pupils to one textbook; and the second, the experimental, or project, group of pupils who used the Project textbooks either on a 2:1 or 1:1 pupil-book ratio. The remaining studies employed the pre-test and post-test design. the Project textbook users served as their own control.

Data organization, processing and analysis were done initially at the Textbook Project. Subsequently the data were computerized for further analysis. Effects on pupil achievement were determined by comparing the test scores of project and non-project pupils.

The cumulative or long-term effects of textbooks on pupils' achievement require further investigation.



By using careful stacking techniques and regularly talking to the students about how to handle books correctly, teachers can play an important role in prolonging their useful 'life'

Photos: Bruce Cahill

11

Replacement periods and book use in selected countries

Country	Expected replacement	Printing frequency	Classroom storage availability	Frequency of home use	Methods used to carry books
BANGLADESH	1 year	Every year	None	Every day	By hand
CHINA	1 term	Every term	None	Every day	Schoolbag
MALAYSIA	5 years	Annually	Available	Every day	Schoolbag
NEPAL	1 year (primary) 2-3 years (secondary)	Annually	None	Every day	Schoolbag
NEW ZEALAND	5-7 years	When stock needs replacing (4-5 years)	Some (depending on size/management) or central resources room	Occasional	Schoolbag
PAKISTAN	1 year (primary) 2 years (secondary, college)	Annually	None	Every day	Schoolbag
PAPUA NEW GUINEA	5 years (student) 10 years (teachers' guide)	5 years (student) 10 years (teachers' guide)	Some	Occasional	By hand, schoolbag
PHILIPPINES	3 years	3 years	Available	a) No b) Alternate days, 2 children sharing	By hand schoolbag
SRI LANKA	3 years	Annually	None	Every day	By hand schoolbag
THAILAND	4-2 years	When stock needs replacing (1-2 times a year)	In some schools depending on facilities available	Every day schoolbag	By hand



Photos:
Bruce Cahill,
Florina S.
Espiritu Santo

In some coun-
tries it is
usual for chil-
dren to carry
their books home
on a daily basis



Assessment of present procedures. The current evaluation procedure is acceptable in many respects. First, the focus on childrens' achievement is a desideratum for an educational project like this. Second, the evaluation design used is the most appropriate given the constraint that the collection of data should not disrupt the usual school routines. The longitudinal cohort design was used so that school children could use the project books as these arrived in their schools. Third, some degree of internal validity of the study is satisfied. There is evidence that the Project and non-Project cohort groups are almost the same with respect to achievement-related factors like qualifications of teachers, quality of schools and socio-economic background.

Conclusion. The cumulative or long-term effects of textbooks on pupils' achievement require further investigation. Other studies should be made of the classroom use of textbooks by both pupils and teachers, in order to determine whether or not there is an effective carry-over of what was learned during teacher training. The affective (attitudes, perceptions) aspects in the use of textbooks should also be explored.

Chapter Two

PLANNING AND BUDGETING

This section comprises extracts from a proposal made for curriculum and materials long term planning in Papua New Guinea for the years 1986 to 1990; a report of the planning and budgeting activities of the IMC in the Philippines and the planning and procedures used for implementation of programmes in Thailand and New Zealand.

It is essential to the success of any educational materials production programme to carry out detailed long term planning, prepare a realistic budget and establish implementation procedures. It is clear from these country statements that it is impossible to separate the development of educational resource materials, in any form, from the overall considerations of educational aims and objectives and curriculum development.

... It is impossible to separate the development of educational resource materials, in any form, from the overall considerations of educational aims and objectives and curriculum development.

Curriculum and materials planning in Papua New Guinea

by Kwapena Makara, Principal Materials Officer,
Department of Education, Papua New Guinea

The Secretary of Education requested that various task forces be set up to formulate a comprehensive plan for Community (Primary) School development in Papua New Guinea over the next five years.

The aim of this particular task force was to develop a plan for curriculum and materials development in this period and the task force used the paper 'Medium Term Education Development Strategy Discussion Papers' as its reference.

Improving the
quality of
education

Efforts to improve the quality of primary education were to be maintained, with particular emphasis on improving teacher effectiveness and on increasing the availability and range of appropriate learning materials in the classroom. While it was recognized that out-of-school and community resources related to the quality of education should be identified, developed and utilized; this report concentrates on in-school factors to allow another task force dealing with enrolment expansion and improved utilization of teachers and school facilities to address the out-of-school factors.

General objective. To concentrate on education for the community by focusing on basic numeracy and literacy; practical skills

in health, hygiene and nutrition; and on positive social attitudes.

Sub-objectives. Five sub-objectives are identified, which are to:

- a) place greater emphasis in primary education on basic skills which can be applied to living in the community;
- b) place greater emphasis on the development of positive social attitudes and skills which can be applied to living in the community;
- c) ensure the provision of adequate materials to facilitate the achievement of sub-objectives (a) and (b);
- d) ensure the provision of adequately trained teachers to facilitate the achievement of sub-objectives (a), (b) and (c);
- e) ensure the development of adequate means of supervision and monitoring of the achievement of sub-objectives (a), (b), (c) and (d); and
- f) ensure the provision of a pool of national staff adequately trained to achieve sub-objectives (a), (b), (c), (d) and (e). Sub-objectives (a) and (b) determine the content and nature of the curriculum, while (c) is concerned with the

17

development and production of materials, their storage and distribution and the in-service [training] system.

Current activities and constraints on activities and future strategies. The Department of Education has four current activities which directly relate to the achievement of sub-objective (a). These are:

- i) The Board of Studies;
- ii) Syllabus Advisory Committees;
- iii) The Curriculum Unit; and
- iv) The Community Schools Agriculture Pilot Project (CSAPP).

The Board of Studies (BOS). The Board was initiated by the Education Act (1983). Its role is to review syllabuses according to specific criteria and recommend changes or the approval of new syllabuses to the Secretary of Education. The Board also directs Syllabus Advisory Committees (SACs) in terms of syllabus objectives, content, style, layout, degree of detail, sequence and necessary support materials. It also approves and determines the membership of the SACs and approves examination specifications and internal assessment procedures.

Syllabus Advisory Committees (SACs).

As sub-committees of the Board of Studies, the SACs assist Senior Curriculum Officers in their subject areas. They are actively involved in writing materials and examinations.

Curriculum Unit. The First Primary Education Project (ED. II), considerably strengthened the operation of the Curriculum Unit. Its major thrust is in the preparation of detailed syllabus analysis leading to the production of a list of basic skills in each subject area which can then be incorporated into the syllabus.

Community School Agriculture Pilot Project (CSAPP). This garden-based pilot project for community schools uses an integrated approach to the curriculum and its aim is to improve student skills and knowledge and develop positive attitudes towards an interest in village level agriculture and its improvement, which also comprises the major element of sub-objective (b).

Sub-objective (c) relates directly to the development of adequate materials. There are currently eight activities related to achieving this sub-objective. These are the:

- i) production of syllabuses;
- ii) production of teachers' guides;
- iii) production of pupil's materials;
- iv) development of Educational Resource Centres;
- v) school library service;
- vi) production and supply of aids and equipment;
- vii) updating of programmes for radio broadcasts; and
- viii) in-service [education of teachers in the use] of curriculum materials.

Syllabus production. At present there is a syllabus for community schools in each subject area. The syllabus is reprinted periodically to reflect curriculum development in the subject area. Syllabus documents are undergoing major revision as teachers' guides and pupil's materials are being developed. This revision will continue in all subject areas with an additional aim of improving the format in a more compact form. The 'new' syllabuses will include a general overview, objectives, the scope and sequence of skills to be covered, content of subject area, skills [to be developed] and details of required resource materials and teachers' and pupil's reference materials. The reduced need for detailed, comprehensive syllabuses will be reflected as teachers' guides and pupil's materials are developed. These shorter format syllabuses will be issued one to a school rather than one per teacher as in the past.

Teachers' guides. These are now available for all subjects and all grades, with the exception of parts of Community Life and Physical Education. Many are now being revised, or will be revised shortly, to reflect the production of new pupil's materials. Distribution problems have hindered their potential effectiveness. Many teachers have not received copies, or copies received have had a very short 'life' span due to inadequate storage facilities in schools. Reprints have not always been possible due to lack of funds. Often, the

Inadequate
storage
facilities in
schools

lack of information from provinces about the numbers required has made effective stocktaking impossible.

Support staff in the distribution network are few in number and do not have the necessary skills to perform their job adequately. This is a major constraint when trying to ensure that products reach their final destination. The distribution system is in need of a thorough review.

Pupil's materials. Pupil's books and materials have been produced for grades IV, V and VI in Mathematics, Community Life and Health. English for Melanesia is now available for grade I and writing has commenced for grades II, III, IV and V. Most of this work evolved through the First Primary Education Project and a major thrust of the Second Primary Education Project will be to ensure its continuation.

Support positions for writers, designers, illustrators, typists, a photographer and more staff in the storage/distribution area are required to overcome some of the existing constraints, which will be considerably greater in the area of pupil's material production than they have been for teachers' materials. The problem of [inadequate] storage space and packing facilities will need to be overcome and a sound replacement policy for books will have to be devised and implemented.

To a large extent the Second Primary Education Project addresses itself to the problems of ensuring that new pupil's materials complement the syllabus; the complexity and scope of the task; and the in-service teacher training procedures necessary before introducing the new materials into schools.

Education Resource Centres (ERCs). Provincial ERCs have been set up to provide facilities for materials production and distribution and to provide centres for co-ordinating and implementing in-service courses. Of the 20 provinces, four have fully operational ERCs, two have partly operational ERCs, six have advanced plans for setting them up and the remaining provinces all have intentions to plan for ERCs in future. The National In-service Coordinator assists provinces with their plans to set up ERCs.

Rationalizing
the role of
Educational
Resource
Centres

Existing difficulties include the complex task of implementing a successful programme involving definition of the role of ERCs, finding suitably qualified staff to man the centres, and providing for their further training after appointment. Many provinces lack sufficient funds to establish an ERC.

School Library Service (SLS). The major input of the School Library Service is the operation of a subsidy scheme to assist community schools purchase books. For each kina contributed by a school, the SLS will

contribute another kina*. Provincial, rather than individual school, participation is encouraged in order to streamline operations and make purchases more cost effective. A warehouse is presently being established at the National Library to take advantage of bulk order purchases. The major thrust of the SLS over the next five years will be to consolidate present activities. It is also proposed to increase the book subsidy scheme and institute a 'book flood' project in two or three provinces.

Aids and equipment. Schools have been supplied with science kits, some mathematics teaching material, various posters in a number of subject areas, maps, globes and picture kits for Community Life. These are an integral part of the curriculum requirements, but many schools lack these materials due to lack of funding at both the national and provincial levels.

Science kits are in need of replenishment and mathematical aids are not being produced because of the lack of skilled carpenters to produce them. When additional funding can be found it often takes over a year to buy items through the tender system operated by the Department of Works and Supply.

Broadcasts to schools. Regular broadcasts have been produced in English, Community Life, Science, Health, Expressive Arts and Christian Education. Most

* Approximately 0.95 PNG kina = US \$1

programmes were made before 1975 and in many cases do not support the new syllabuses. The grade V science and grade I English programmes have recently been revised. Teachers notes for new programmes are also being produced.

There has been a lack of an overall plan for new scripts to be written. A new studio has been producing tapes for teaching programmes. In-service [education] tapes are planned for production also. As more pupil's materials have become available, the need for regular school broadcasts has been reduced and some programmes will be ultimately terminated.

In-service [training in the use of] new materials. This function is carried out by Senior Curriculum Officers and the National In-Service Coordinator. Because of limited staff it is impossible to produce the required amount of in-service material.

(This overview was followed by a breakdown of requirements and costs over the five-year period under the headings: (1) Syllabuses; (2) Pupil's books; (3) Teachers' guides; (4) Teaching resources, aids and equipment; (5) In-service education costs for introducing new curriculum materials; (6) Committees, workshops and advisory services; (7) Curriculum and production staff; and (8) Staff training).

Budgeting and resource management - IMC

by Felixberto Sanchez, Budget Officer, IMC,
University of the Philippines, Quezon City,
Philippines

Planning and budgeting at IMC can be considered as a single activity geared towards the accomplishment of its main goal; to help improve the quality of basic education through the timely provision of adequate and quality textbooks and other instructional materials in all subjects and grade levels of the public elementary and secondary schools. It also aims to determine and secure the correct amount needed to finance the implementation of IMC's programme of activities.

Procedures. As a national government agency implementing an educational foreign assisted project, IMC always has to consider the objectives set during the project appraisal, the MECS thrusts and needs and the government's accounting and budgeting procedures while preparing its plans.

Preparation and approval. The preparation of the annual budget is in response to the budget call issued by the government's Office of the Budget and Management (OBM) instructing agencies to prepare and submit their budget estimates within a given period of time in which its programme of activities, in priority order, must be included. Based on the OBM call, IMC issues its own call for all its division

and office chiefs to prepare and submit their own proposals to the Budget Section for review and classification into objects of expenditure.

Plans are formulated in co-ordination with other agencies, groups and individuals concerned, such as the Bureau of Elementary and Secondary Schools, curriculum planners and writers. Priorities, schedules, deadlines, strategies and agreements are set and serve as the basic guidelines for setting the IMC annual plans.

Budget preparation

Once all the activities are identified and agreed upon, they are translated into budgets of expenditure such as:

1. Development cost - manuscript writing, field try-out and revision, typesetting, illustration, design, printing or purchase of try-out copies and other direct costs up to the preparation of manuscripts into camera-ready material.
2. Manufacturing cost - printing text and cover pages, binding, finishing and packaging, handling, insurance and delivery of books from printers to the IMC warehouse.
3. Paper cost - both body and cover stock.
4. Warehousing and distribution cost - warehouse rentals, freight, grants to regional offices for the delivery of

books from the provincial warehouses to the schools.

5. Administrative and other costs - salaries of personnel, travelling expenses, supplies and materials, water, power and communication services, repairs and maintenance of equipment and facilities and other related expenses.

The projected publishing cost of a book is based on the specifications and data provided by the editors and production staff which include:

Book specifications and publishing costs

- a) Book trimmed size
- b) Number of pages
- c) Number of colours (cover/text)
- d) Number of copies to be printed
- e) Type of binding
- f) Kind of paper
- g) Packaging
- h) Writers fees
- i) Typesetting/art requirements

Before the proposals are consolidated, a budget meeting is held with the chiefs to clarify and discuss the details and factors relevant to the attainment and reasonableness of each division or office proposal. After all the issues are settled, the proposals are finalized, consolidated and forwarded to the head of the agency for review and approval. The consolidated proposal is sent to the office of MECS for approval and inclusion in the ministry's proposal, for subsequent submission to OBM.

27

Agencies must justify their proposals before OBM prepares recommendations for cabinet discussion. OBM sets budget ceilings for each agency and submits the finalized proposals to the President for review and approval. Later, OBM prepares the General Appropriations Bill. This is submitted to the Prime Minister who presents it to the National Assembly for deliberation and passage into law, with the President subsequently signing it.

Execution and accountability. The approved budget is based on preliminary estimates and usually differs from the agency proposals. An agency like IMC must then submit a refined version of its programmes which becomes the basis for the authority to spend and disburse, given by OBM. This time the division and office chiefs are asked to submit a detailed quarterly work and financial plan based on the approved budget and current plans. After these are reviewed, revised, classified and consolidated by the Budget Section, the plan is sent to the agency head for approval and submission to OBM through the MECS minister.

Achieving
targets

Besides the work and financial plan described above, the IMC Planning Committee undertakes more detailed planning of activities with more emphasis on how to achieve set targets. Each chief submits not only work targets based on the instructional materials requirements of the public system,

but also the expected problems, the recommended solutions and proposed innovations to ensure target accomplishment. These are then reviewed and deliberated on by a larger group which includes supervisors and other key staff. The committee makes it a point that all planned activities are well co-ordinated as this is the primary basis for all schedules for procurement of materials and services as well as recruitment of personnel.

During the budget execution, periodic reports of expenditures and physical accomplishments are prepared as a monitoring and evaluation tool whereby the efficiency and effectiveness of programme implementation and fund utilization is measured. Copies of these reports are provided to various agencies such as OBM, National Economic Development Authority, World Bank and MECS.

Assessment of present procedures. The present procedures enable every responsible official and key staff of IMC to take part in the planning of the agency's activities and interact with heads of the other units. It also develops a closer working relationship among the staff in achieving the agency's goals.

To ensure the accomplishment of expected outputs, it is necessary to develop a system to monitor the agency's long-term plans. This would help to avoid the

accumulation of any backlog of work to be carried forward to succeeding years.

* * * * *

Procedures in planning - New Zealand

In the planning procedures which are evolving within the Curriculum Development Division, a major emphasis is now being placed on involving the specialists in the two arms of the division, that is, in both curriculum and resources development, in the early stages of the appraisal of needs. From the point of view of specialists in the development of resources for learning, this means attempting to make a statement of an idea, or a purpose, or a body of content without prejudice, as it were, to the way in which it may be treated, or the way in which it may eventually be applied.

Establishing priorities

At the same time, appraisal involves considering priorities; what financial resources are available, what priority is given to the various calls on these

... special attention is given to the policies of the government of the day, and to any directions given by the Minister...

resources? For the latter, special attention is given to the policies of the government of the day, and to any directions given by the Minister, or to matters in which s/he has taken a particular interest.

Planning for production. Once a decision has been made on the most appropriate means of responding to a need in curriculum, the detailed planning becomes the responsibility of the specialists concerned. In the case of a textbook project, this will be the subject specialist and the resources specialist in publications. An early assessment has to be made as to whether the project can be handled within the existing resources of the division, that is, within the workload of its permanent staffing, its range of expertise, and its financial resources.

A new proposal must have a breakdown of funds required to prepare, produce and implement a project, and a time schedule for their expenditure.

Any project such as this, involving additional money or new, permanent, staffing is the subject of a new policy proposal. This will be considered by the Government, as part of its annual budgetary cycle, in the light of the Minister of Education's priorities for his vote, and of the overall priorities in government expenditure. A new proposal must have a breakdown of funds required to prepare, produce and implement a project, and a time schedule for their expenditure. Once approved, the new policy becomes the management plan for the achievement of targets.

* * * * *

Further aspects of planning*

A group report on planning considerations produced at the Manila Seminar provided the following summary. It is interesting to note that the group listed a minimum of curriculum revision and change as its highest priority:

Suggestions for cost reduction

1. Minimize curriculum revision and changes;
2. Utilize findings of present/existing studies and research in assessing the need for specific instructional material as a basis for planning;
3. Determine roles and co-ordinate efforts among participating units or agencies to avoid duplication of tasks to meet deadlines;
4. Include several subject areas in one text book;
5. Depending on warehousing space, print books in sufficient quantities to last more than one year;

* Report of a working group chaired by Mr Hussein bin Awang Besar, Director, Textbook Bureau, Ministry of Education, Malaysia. Regional Seminar on the Production and Distribution of Textbooks and Other Related Teaching/Learning Material, Manila, Philippines, 12-22 August 1985.

6. Produce hard bound copies to last longer;
7. Use a fixed pricing formula;
8. Schedule distribution during months with no climatic extremes to lessen packing cost; and
9. Contract printers to also take charge of distribution following a fixed schedule.

Possible innovative approaches

1. Subject the instructional materials to formative evaluation;
2. Encourage teacher participation in book development through textbook writing contests and other means;
3. Develop tri-media materials: print, audio and video to supplement classroom instruction;
4. Produce one book to include three or more subject areas;
5. Produce pre-grade I level books to prepare children from underprivileged families for grade I work; and
6. Strengthen local capability in the development of supplementary materials based on the national curriculum.

How to improve management operations and products

1. Organize a management institute to train ministry personnel in educational management;
2. Employ subject specialists to conduct seminars on the latest methodology in preparing, producing and revising curriculum materials;
3. Send personnel for on-the-job training in other countries;
4. Delineate functions between and among agencies involved in instructional materials development with constant consultation and dialogue on issues or problems confronting each one, or all groups;
5. Provide bigger and more varied group participation in the preparation of book manuscripts for a wider range of selection of quality products;
6. Maintain a growing list of teacher-writers who may be appointed or contracted to write manuscripts in their areas of expertise; and
7. Improve the system of evaluating textbooks to ensure selection of quality materials.

Follow-up activities

1. Field-test, or gather feedback or reactions from end-users on the

instructional effectiveness of the materials;

2. Conduct nationwide achievement testing of sample classes using final edition and instructional materials;
3. Train teachers to use instructional materials more effectively; and
4. Regularly evaluate every phase of the textbook development programme.

Chapter Three

MANUSCRIPT PREPARATION

Importance of learning materials

by Porfirio Jesuitas, Publication Co-ordinator,
Institute of Science Math Education Development,
University of the Philippines, Quezon City, Philippines

No substitute
for printed
materials

The role of printed materials in classroom activities cannot be over-emphasized. Nothing has been devised, yet, as a substitute or replacement for printed materials as key elements in the educational process. They are crucial in achieving and maintaining standards of quality as well as providing direction to the curriculum. In cases where there is a chronic shortage of trained teachers and inadequacy of teacher training, textbooks and other printed materials provide, in specific and concrete terms, the manner in which teaching should be carried out, as well as the expected outcomes.

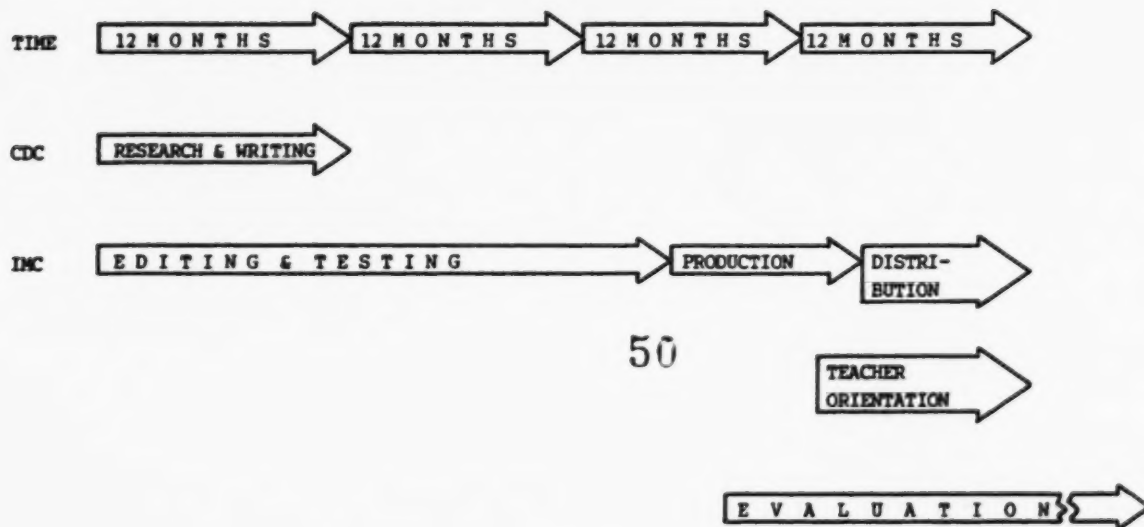
Educational materials ensure continuity of the designated curriculum. Also, due to diversity in regional background and

educational approaches, educational materials provide a minimum of uniformity. Moreover, educational materials provide the vital linkage between the authorities and the student in the classroom. That linkage is necessary if educational policies are to be made relevant to the students.

Philippine Textbook Project system. Textbook and other learning materials development go through several stages: one year for planning and writing; another year to complete testing and revision; a third year for printing and production; and a final year for distribution, teacher orientation and the beginning of an ongoing evaluation of the materials and their use.

Writing the manuscript. The development of textbooks or any other learning materials starts with the writing of the manuscript. As to who writes the manuscript varies from one country to another. In some countries, authors are groups or teams of experts who are experienced teachers and specialists in their subject. They may be university staff, teacher educators, classroom or senior teachers or curriculum specialists. These authors are commissioned to carry out a specific project on either a temporary or a permanent basis. In other countries a body of writers is employed on a permanent basis, but specialists may be brought in if found necessary. In a minority of cases, freelance writers are either invited or commissioned to contribute to manuscripts. These authors

The 4-year textbook development cycle
(Philippine Textbook Project)



are chosen by the organization responsible for developing educational materials.

Review of manuscripts. A common practice among curriculum writers is to work under the leadership of a specialist, sometimes called content specialist or content editor. Content editors evaluate the raw manuscripts. In other instances, a project leader organizes a team from among the members of the writing group. A content specialist is usually invited to participate.

The group then reviews the raw draft and gives suggestions on the following considerations: consistency of style and presentation; consistency in scope and sequence; continuity of text above and below the grade level of the texts in the series; multidisciplinary and interdisciplinary aspects of the material; consistency of the text with the teachers' manual; readability or suitability of the vocabulary level; length of manuscript; accuracy of facts, information and concepts; suitability of the activity; graphics concepts suitable to the ability and interests of the pupil; and consistency with the prescribed educational thrusts and objectives (Natividad : 1983).

These considerations are incorporated into guidelines, sometimes called minimum

learning competencies (MLCs) and the writing briefs which serve as a basis for writing the manuscript. Rewriting of the manuscript is sometimes done several times.

* * * * *

Materials preparation - Thailand

For the preparation of textbooks, workbooks, supplementary readers, teachers' manuals and teaching plans, a committee for each subject is established. Each committee comprises advisers or consultants and the working group, consisting of subject specialists, education supervisors, teachers representatives from various government and private agencies, university instructors, and the staff of the Curriculum Development Centre, with the staff of the Book Development Centre (BDC) of the Department of Curriculum and Instruction Development (DCID) as secretary of the committee. Each committee must consider the content of the subject area of each book to be produced and all drill lessons in each volume.

Members of the working groups are then assigned to write the manuscripts for each unit of the content stated in the learning syllabus. After each unit is finished, the manuscript is checked and corrected by the whole committee. When all units of the planned book are completed, a final examination of the manuscripts is carried out by an expert or a group of experts appointed by the Ministry of Education. The

staff of the BDC, who are the secretaries to each committee must then act as editors of each manuscript. That is to say, they must be responsible for the illustrations, format, design, size and volume and proofreading, to make the book a learning tool, in prototype form for try-out.

* * * * *

Curriculum committees/project teams - New Zealand

Usually any major project has an ad hoc advisory committee established with members drawn from various interested groups (teachers' organizations, parent and community groups, publishers' associations) as well as departmental officers and teachers college representatives. The task of this committee is to ensure the aims of the project are being met, and that the manner in which they are being met accords with the members' particular interests. The committee expects to be kept informed on progress and on any issues arising from the development, so that members, in their turn, can keep the groups they represent informed, and communicate their views in response.

The committee is appointed by the Director, Curriculum Development, in consultation with other directors in the Department, and will often be chaired by an assistant director, or senior curriculum officer, leaving the curriculum or resources specialist free to act as executive.

In the case of a publishing project, the subject specialist and the education officer for publications collaborate in drawing together the project team which will take up the day-to-day action on the project. Procedures followed by this team will be based on the procedures governing all curriculum developments and publications in preparation.

The project team endeavours, where possible, to involve members of the advisory committee in some of the practical aspects of the project's development, such as the trial of materials in schools, so that they can have first-hand experience on which to base their contributions to the committee.

The project team endeavours ... to involve members of the advisory committee in ... the trial of materials in schools...

* * * * *

Chapter Four

TRIAL EDITIONS

Formative evaluation in the Philippines

by Nellie R. Apolonio, Testing Chief, IMC, University of the Philippines, Quezon City, Philippines

Formative evaluation in the Philippines Textbook Project, refers to the total effort in gathering data to be used in improving the instructional effectiveness of a textbook teachers' manual or related material, while it is still being developed. Formative evaluation is the inclusive term for both expert and learner verification procedures which the prototype instructional material is subjected to prior to the production of the final material for mass printing.

Procedures. The Textbook Project materials are subjected to the following formative evaluation procedures:

1. Pilot testing or individual-based try-out which involves subjecting to actual use by representative end-users, certain sampled activities or lessons in the manuscript. This is

43

conducted by writers during the writing phase, and where necessary, also by editors during editing.

2. Field testing or group-based try-out, which involves the actual use of the materials in the classroom by representative try-out classes and teachers as managed by the Testing Section. This is discussed in the next part of the paper.
3. Expert review, which involves consultants to the writing group evaluating the material during the writing phase, also by curriculum group representatives prior to the try-out, and by subject specialists or division subject area supervisors (DSAS) during the try-out managed by the Testing Section.

Field testing or try-out. The ultimate goal of field testing is to generate and gather feedback data from representative teachers, DSAS, and learners who actually use the materials and subsequently, to process and use the feedback data for the revision of the try-out materials.

The ultimate goal of field testing is to generate and gather feedback data from representative teachers ... and learners who actually use the materials...

Field testing is usually conducted for one full school year. However, when the development schedule allows only a short period, a modified field testing scheme is adopted. The modified schemes that have been attempted include:

- a) obtaining feedback data from the try-out participants during the 1st semester and deriving feedback from the advance review and analysis of the 2nd semester materials by the subject specialists and teachers; and
- b) assigning related units or portions of the materials to representative classes and teachers for simultaneous try-out, with feedback data being obtained within one semester.

The sampling of respondents, particularly the number of representative classes, has undergone a significant change from the original 40 classes, trimmed to 26, and presently numbering 13. At the start of the project the research units of the curriculum development centres took charge of field testing and made use of 40 classes. When field testing became the joint concern of the research units of the Testing Section and the Curriculum Development Centre, both groups favoured the use of one representative class and teacher, and all DSASs working with the teacher as try-out respondents from each of the 13 regions.

Sampling

45

The main try-out activities include:

- a) the orientation of field testing respondents to use the materials and feedback mechanism (held before the opening of the school year, at which time the needed try-out materials are distributed);
- b) actual use of the try-out materials and completion of the feedback forms by the try-out respondents;
- c) retrieval and processing of feedback data;
- d) discussion session to arrive at agreement for revision among writers, editors, and testing staff; and
- e) actual utilization of agreements for revision in the improvement of trial editions.

The primary sources of feedback for revision include:

- 1. Marginal notes or comments and suggestions on the pages of the accomplished try-out materials, written by teachers and DSAS shortly after completion;
- 2. Observation reports or first-hand feedback data on the actual use of the try-out materials in the classroom from the DSASs and testing staff during observation visits to the try-out classes;

3. Interview schedules on reactions of try-out teachers and subject area supervisors to features of the materials as gathered by the testing staff; and
4. Student performance measure which refers to the formative and summative tests provided in the materials, and also to the pre-tests and achievement tests administered by the curriculum group of the Ministry.

Assessment of present procedures.

Generally speaking, the present procedures have served the purpose of providing substantial feedback data in time for revision of the instructional materials. The practice of concentrating attention and effort in field testing and leaving pilot testing and expert review as concerns more of the writing group than the testing group, however, has resulted in the detection of weaknesses in the materials only during the field testing phase. Ideally, most of these inadequacies can be spotted during the writing and initial editing phases.

Frequently, the materials are inadequate, since they are rushed to make them available in the field on schedule. This necessitates additional instructions to try-out teachers and respondents about how to make the try-out materials work, thus placing a burden on try-out respondents that they may not be able to handle.

Recommended measures. To ensure that the formative evaluation procedures generate adequate and useful empirical evidence on the instructional effectiveness of the materials, the following general measures are recommended:

1. A formative evaluation group co-ordinates and facilitates the planning and implementation of procedures;
2. Each formative evaluation procedure should generate and gather specific kinds of feedback; and
3. Adequate time needs to be allotted for the conduct of the procedures.

Samples of the instructions, procedures to be followed and forms to be completed for the try-out of textbooks and other instructional materials under the Philippine Textbook Project are included in Part Four.

Part Two

THE PRODUCTION PROCESS

Chapter Five

EDITING AND EDITORIAL MANAGEMENT

In many countries the publisher is the overall co-ordinator of the text enterprise. In others, and especially in the Third World, education ministries have responsibility for the articulation of the effort. As a combination of intellectual effort and the integration of printing and other services, the development of textbooks requires careful co-ordination at all levels. This is often a neglected aspect of the enterprise, and the lack of articulation and co-ordination results in inefficiencies and increased costs. It is important to have one agency responsible for the entire process of textbook development, so that the process functions in a unitary, integrated fashion. Those responsible for co-ordination should also have the necessary technical expertise to understand the various parts of the complex process of textbook development.

(Altbach : 1983)

49

The editorial process

by Minerva K. de Jesus, Chief, Editorial Division, IMC,
University of the Philippines, Quezon City, Philippines

Editing involves managing the development of a manuscript from the early stages of planning and writing, through design and production, to final printing. The responsibility of the editor is to help produce quality books that are correct, clear, clean and suited to the purpose for which they are intended. This must be done efficiently and economically; timeliness and cost-effectiveness being crucial factors in book production.

The responsibility of the editor is to help produce quality books that are correct, clear, clean and suited to the purpose for which they are intended.

Procedures. Just as the generation of each manuscript varies, so does the extent and nature of the involvement of the editor in the initial stages of preparation. If an author or a writing team is commissioned, the editor may help in the planning and organization of the material by setting guidelines and specifications for the writing of the manuscript and by monitoring the development following an agreed-upon submission schedule.

If the editor is assigned a finished manuscript, he will review it first for content and then for style. Content editing entails a review of the material to check for compliance with set requirements (the prescribed curriculum in the case of textbooks); accuracy of facts, information and concepts; suitability of content (including text or art) for the end-users; and the logic of the presentation or approach. The editor prepares a workable schedule for the completion of editorial and production tasks.

Editing

Following approved specifications, the editor marks up the whole manuscript and typesetting proceeds. Art work is undertaken at the same time.

The Editorial Division receives two photocopies of the typeset materials. One copy is used by the editor for proofreading, while the other copy is given to the graphic artist to prepare a dummy. The editor then returns the corrected galleys to Production. Whatever corrections have to be made on the galleys are reset by the typesetter. The graphic artist then starts a page to page layout (called mechanical or mech. dummie) using the original or reproduction copy of the typeset materials. The artist also provides adequate space for the illustrations and photographs wherever they will appear on the mechanicals, and indicates the proper reduction or enlargement of the original artwork or photographs.

Proofreading
and graphics
preparation

51

The completed camera-ready pages are turned over to the Editorial Division. The editor inspects the completeness and correct sequencing of all elements; i.e. approved cover concept with accompanying colour guide, copyright page, front matter, text matter and back matter, if any. The camera-ready materials are then transmitted to the Manufacturing Division.

The printer produces blueprints which the editor and artist check for completeness and correctness of the content and the proper placement of both text and art. The corrected blueprint is returned to the Manufacturing Division for printing.

Teamwork. The procedures described above are generally effective. Given a clean manuscript, properly and clearly marked, the designer can conceptualize the design easily and typesetting can proceed efficiently. Careful editing before typesetting minimizes delays and expense.

Given a clean manuscript, properly and clearly marked, the designer can conceptualize the design easily and typesetting can proceed efficiently.

The close interactive work of editorial and production staff calls for efficient handling of materials so that there are no delays. The system is dependent on the staff maintaining regular follow-up and

collaboration effort, each one promptly attending to the tasks at hand and facilitating the work of the next person by giving clear guidelines and using generally accepted, intelligible marks.

In this regard a periodic review of staff training needs is beneficial, as well as an assessment of their capabilities in order to maximize the use of manpower.

Staff training

* * * * *

Developing materials in China

by Liu Binrong, Director, Teaching Research Office for Teaching Materials of Primary and Secondary Levels, Beijing, and Pei Xiuzhi, Teaching and Research Unit, Education Department, Henan, China

Educational materials include textbooks, teachers' books and some related reading materials and guidance materials for students. Among all these, textbooks are the most important.

These educational materials are not static. In order to keep abreast of the times, the contents and requirements of education may be changed accordingly after some tests of educational practice. Therefore, educational materials also need to be changed. In the light of specific conditions, the originals may be revised or new materials compiled.

53

Recruiting editors

People with professional skills, especially editorial staff, are employed to develop educational materials. Special agencies are set up to publish, produce and distribute educational materials. Editorial staff are mainly responsible for compiling educational materials, and they heed the teachers' opinions of the materials so that they can improve them.

There are two ways to enroll editors; one is to select experienced teachers, the other is to choose university or college graduates. Editors tend to continue in their work in order that they can get more experience and become more specialized. Those who do not perform well can be transferred to other posts.

Educational materials are compiled under the guidance of educational administration, which designs the training aim, teaching plan, syllabuses and curriculum. The editors compile and write textbooks according to these stipulations. As most of the material is written by the editors it is rare to have outside contributions. Editors first write a detailed outline, or draft, for the comments of experts and teachers and then compile a trial edition which is tested in some schools. After it is tested and revised, an official edition is produced for use by all schools.

Chapter Six

PAPER PROCUREMENT

Choosing the right paper

by Nonilon P. So, Manufacturing Consultant to the
Philippine Textbook Project

Paper is the most important raw material used in every printed product. It represents the largest portion of the total cost of the finished product.

As new printing technologies have developed during recent years, numerous types and varying qualities of papers are being manufactured, not only to meet the requirements of the printing processes but often the aesthetic needs and end-use demands of the printed product.

It was in consideration of these criteria that the choice of printing paper for the Philippine Textbook Project evolved in 1976. The Project opted to use an uncoated groundwood sheet for web offset with a minimum prescribed brightness, and a weight of 66 grams per square metre (gsm) with the corresponding strengths in tear and tensile

55

Bulk paper description, standard book sizes
and paper quality in selected countries

	Paper description	Book sizes	Paper quality
BGD	21" x 31" normal	9" x 8"	Offset; bookprint (special type of offset paper)
PRC	rolls and sheets	185mm x 130mm	Offset (grades I & II); all other grades use ste- reotyping paper
MAL	Sheet size	7½" x 10½" (approx)	Bookpaper
NEP	17" x 27" 27" x 34"	6½" x 8½"	White printing (dust free)
NZE	Mostly inter- national A size	A4; A5; 240mm x 178mm (mostly)	White offset (various weights) Matt art (junior classes)
PAK	21" x 31"	9" x 7" for primary sch.	White; normal; offset
PNG	Mostly inter- national A & B sizes	A4, A5 books A3 posters	Offset mounting board art paper
PHI	Rolls	7" x 10"	Security marked ground wood paper - textbooks; newsprint for workbooks
SRL	Rolls; sheets	Crown quarto & demy octavo	White printing offset and letterpress
THA	Rolls; sheets	A4; A5; 7" x 10"	Mostly newsprint; some glazed/white

BGD Bangladesh; PRC China; MAL Malaysia; NEP Nepal;
NZE New Zealand; PAK Pakistan; PNG Papua New Guinea;
PHI Philippines; SRL Sri Lanka; THA Thailand

values. The state of development of the local printing industry was a major consideration in the choice of the paper. Subsequently the Philippine Bureau of Standards adopted the specifications for use in the manufacturing of Philippine textbooks.

Suppliers. In 1977, the Textbook Project launched a worldwide search for paper mills with a successful manufacturing record for the type of paper specified above, to pre-qualify them as authorized and exclusive suppliers. Fourteen paper mills from eight countries, including the Philippines, signed agreements with the Project to supply the paper at competitive prices.

These paper mills served as the exclusive shopping list of printers who came to the bidding table during international competitive bidding for the manufacture and delivery of Project textbooks. This indirect system of paper procurement was adopted with a view to giving Philippine printers the opportunity to acquire experience and know-how, not only in the handling and importation of paper but also in establishing direct contact with paper suppliers abroad. The payment for paper quoted in the printers' bid was drawable 100 per cent from World Bank loan funds. The paper quality and quantity were closely monitored by the Project. As the cost of paper was integrated in the bidder's tender, this system was called the integrated procurement

Importing
paper supplies

... for Filipino printers the experience was a nightmare. Large shipments of paper were delayed at the piers or were damaged due to lack of handling facilities.

system. It presented no problem for foreign printers and for the Project as well. However, for Filipino printers the experience was a nightmare. Large shipments of paper were delayed at the piers or were damaged due to lack of handling facilities.

International bidding. Confronted with these problems the Project decided to procure paper directly through international competitive bidding. This was stored in large warehouses and issued to printers who succeeded in winning manufacturing and delivery contracts from the Project.

Aside from the added cost arising from warehousing, the Project had to learn from experience the delicate job of handling large shipments of paper. It has, on the other hand, made the Project truly a well-rounded publishing entity and the only one of its kind in the country today.

Assuring supply at preferential prices - China

Every year, 15,000 tons of paper is needed for the production of textbooks and other related teaching or learning materials for elementary schools and middle schools in

Henan Province. Because of the rapid increase in the number of publications, paper is sometimes in rather short supply.

The government ... stipulates that paper for [textbook production] must be supplied with preferential prices lower than the market price.

The government demands that the department responsible for paper production must guarantee to supply enough paper for the production of textbooks and other related materials, and stipulates that paper for this use must be supplied with preferential prices lower than the market price by about 20 per cent. This guarantees the paper for textbook production and reduces cost at the same time.

Preferential
prices



Considerations for PRODUCTION



Chapter Seven

PRODUCTION OF PRINTED MATERIALS

Textbook production is characterized by a good deal of confusion, overlapping of authority and frequent changes in policy.

An effective textbook policy must not only provide the required books to the schools, but must also take into account the capabilities and needs of the entire publishing infrastructure.

(Altbach : 1983)

Work of the Production Division - IMC

by Aurora N. Pangilinan, Officer in Charge, Production Division, IMC, University of the Philippines, Quezon City, Philippines

The Production Division is responsible for the transformation of editorially approved manuscripts into camera-ready pages for mass manufacturing. It has two operating units: the Graphic Design Section

61

and the Typesetting Unit. Its principal activities are book and cover designing, preparation of printing specifications, typesetting, illustration, preparation of repros (camera-ready pages) and inspection of final proofs or 'blueprints' prior to printing.

Procedures. Production work starts when an edited manuscript, keymarked and accompanied by art specifications, a style sheet and a rough dummy is submitted by the Editorial Division. If the material is simple or if it calls for a similar treatment as a previously published book in the Project, the manuscript goes through the production following the editor's guidelines as given in the style sheet and dummy. If the manuscript is more complex, sample pages are ordered. The graphic designer prepares the specifications for typesetting and design. The sample pages, when completed, show how the book will look and these are transmitted for editorial approval.

Author-editor
collaboration

When the substantive changes, usually effected through the collaboration of author and editor, are incorporated in the manuscript, copy editing or 'styling' can begin. This is the process of checking the manuscript for errors in grammar, spelling, facts, inconsistencies of style, weaknesses of sentence structure. In 'styling' the manuscript, the editor imposes a consistent system of grammatical usage on the manuscript and a consistent, logical

arrangement of the editorial components of the text such as headings, sub-headings, and extracts, to clarify the organization of the material for the designer and eventually for the reader of the book.

The next step is keymarking the manuscript, which is the process of identifying the components of the text after it has been styled, by indicating the hierarchy of headings, sub-headings and elements other than straight text. This keymarking is reflected on the style sheet which will help the designer visualize how the book should look and prepare the appropriate page lay-outs.

Keymarking

The edited and keymarked manuscript is transmitted to Production complete with art specifications, style sheet and rough dummy (the editor's working dummy suggesting space allotments for the material). If the book is complicated, sample pages are ordered and these are prepared by the designer and sent to the editor for approval.

The editor's work as the manuscript goes through the progressive stages of production is mainly the checking of the material for errors, first in the galley proofs, then later on in the mechanicals (or camera-ready pages). Art work for the cover and the inside pages is also checked when these are in pencil sketches, and approved before the execution of final art.

63

* * * * *

Procedures for production - New Zealand

Editorial and art editorial staff may be involved in the early stages of the preparation of material, in working with an author, or a writing group. The success of any project may depend on the level and quality of this involvement.

~~The editor takes responsibility for seeing that the material goes through all procedures.~~

Editor's responsibility

Once there is a satisfactory 'author's draft', however, the production of the material follows a specific procedural path. The editor takes responsibility for seeing that the material goes through all procedures. These procedures involve checking at the stages of final editing, copy mark-up, galley proofs, paste-up and page-proof by most or all of the following, with check-back as required on any points arising:

editor, assistant editor, art editor, chief editor, chief art editor, education officer (publications).

A stamped page, with checkpoints to be completed, accompanies the copy through all for these stages. In addition, the editor will ensure that the author is consulted on matters of copy preparation or design that affect him/her, and that the author (if a departmental officer) has cleared the material

for approval with the appropriate officers,
before a commitment is made to production.

* * * * *

Scheduling, preparation and production

by Md. Ali Azam, Member, National Curriculum and
Textbook Board, Dhaka, Bangladesh

The National Curriculum and Textbook Board (NCTB) prepares its production schedule for primary level about one year ahead, i.e. printing, binding, block-making. It obtains the requisition of books for the next academic session from the Directorate of Primary Education which shows the total number of books of different titles for different grades. The number of textbooks to be printed in a particular year, based on the number of students in each grade, is fixed by a joint meeting of the NCTB and the Publishers Association. The NCTB's production schedule is designed to complete production and distribution of books within the time limit.

The NCTB procures the printing paper from the local mills or as a gift from UNICEF, and blocks of illustrations from the block-makers, and enters into contracts with the printers and binders for each individual job. This also involves co-ordinating their activities to get the books into the NCTB's godown for timely delivery to the Directorate

of Primary Education and the enlisted booksellers.

Books for grades VI to X are published in collaboration with private publishers. They work from the manuscripts to typeset, print, bind and distribute the books on behalf of the NCTB. Of course the Board controls the quality of such books.

Copyright. The legislation of the country protects the interests of the writers, but the NCTB and the big private publishing houses, in most cases, purchase the copyright of the book from the authors. Books are also published on a royalty basis, with payments being made by the publisher to both the author and the NCTB.

Preparation. Textbooks published by the NCTB directly or through publishers are written by commissioned authors. Committees of writers are formed from subject specialists, classroom teachers and renowned intellectuals. The NCTB also invites, by public notification, authors and publishers to submit manuscripts on any subject for the approval of the NCTB. Editing is done by an editorial board consisting of senior subject specialists and classroom teachers. The editorial board works in close co-operation with the writers and the NCTB co-ordinates the activity.

There are some professional artists who are commissioned by the NCTB to prepare

illustrations following the guidelines given in the curriculum. A selected group of art teachers from Teachers Training Colleges, work with the professional artists to maintain the educative value of the illustrations.

For new publications, dummies are prepared and supplied to the printing presses. The master positives for offset printing are prepared centrally by the NCTB and also distributed to the printers. Reprints are given to the original printer after minor revision and corrections have been made.

Proofreading work is done by a group of professional proofreaders appointed by the NCTB on a contract basis. The final print order, whether for a new publication or a reprint, is issued by the Chief Editor of the Board.

Publishing. The NCTB directly publishes the textbooks for primary level. The role of the Publishers Association is notable as it controls many of the activities through its rules and by-laws. It also negotiates with the NCTB and the Government to protect the interests of its members and for the improvement of the publication business. The Association also procures printing paper from the mills in bulk and allots it to the different publishers according to their need. It also takes responsibility for proper book distribution.

The Board monitors the timely publication of books and the quality of printing. NCTB also fixes the price of textbooks so that they remain within the purchasing capacity of the parents, rich or poor.

Quality control. The NCTB controls the quality of printing and binding of the books at primary level by maintaining direct supervision over the printers and binders. Articles in the deed of contract ensure good quality and keeps the contractors alert against poor performance. It is necessary, in such a system, to ensure that systematic procedures are closely followed. This is something that the NCTB is making concentrated efforts to improve.

* * * * *

Production process - New Zealand

This process starts from the time that the completed manuscript or author's draft

The observance of publishing procedures is integral to the maintenance of quality control. All people involved ... are encouraged to feel a sense of personal responsibility for quality control.

comes to hand within the publishing organization. Though the editor, and

sometimes the designer, may have had considerable dealings with the author(s) beforehand, a clear set of procedures is followed strictly from this point. The observance of publishing procedures is integral to the maintenance of quality control. All people involved in a publication's development are encouraged to feel a sense of personal responsibility for quality control.

Staff responsibilities. The staff in the School Publications Branch are grouped into three broad roles - editorial, art editorial, and administrative. In any one publication a team of people will be involved. It is the editor who has the executive responsibility for ensuring that the publication proceeds through all stages. The assistant editor acts as a copy editing and stylistic back-up. The chief editor supervises the work of the editor in a series of informal consultations. The art editor is responsible for designing and executing the design of the publication, and usually for liaising with the printer. The chief art editor supervises the work of the art editor in the same way as the chief editor does with the editor. The administration officer will be called upon to provide information and services for the distribution of the publication and will maintain financial records. The education officer has oversight of the overall planning and progress, and performs an approval role at certain stages of progress.

Beyond the immediate organization are various people with whom the members have dealings. They are:

- a) the contributors (authors and researchers, and sometimes contract editors or designers, artists and photographers);
- b) the curriculum originators or co-ordinators (specialists within whose area the publication falls);
- c) the senior approving officer (the Director (Curriculum Development) and the Assistant Director (Resources Development)); and
- d) the printer.

They will deal with various other experts or consultants as required.

The stages in the procedures are as follows:

- | | |
|---------------------|--|
| Editing: | The editor works through the manuscript to ensure clarity of expression and organization, accuracy, and appropriateness for the reader. |
| Style: | The assistant editor works through the manuscript for consistency in style - in usage and in format, according to the guidelines of the house. |
| Mark-up/
design: | The art editor decides on typesetting specifications and |

overall design of the book and its specifications.

Requisition: The quantity is assessed by the administration officer on the basis of information supplied by the curriculum originator; specifications for the publication (size, format, number of pages, ink, paper, binding, collation) are agreed upon; the Education Officer approves the requisition.

Typesetting: The manuscript goes to the printer for setting.

Design and commission: while typesetting takes place, the art editor does major planning for design and commissions all illustrations.

Galley proofs: Typeset galleys are proof-read and corrected by the editor and assistant editor.

Paste-up: The art editor pastes up the publication, sizes the illustrations, and gathers all the artwork for the publication into one folder; the paste-up goes on an approval round, including editor, assistant editor, chief editor, chief art editor and Education Officer; approval to print is sought from the Assistant Director (Resources Development).

Page proofs: All camera work for the art work, including any colour separations and the proofs of the laid-out pages, go on an approval round, ending with the Education Officer.

Final correction: Any corrections to the page proofs are checked on the film at the printer by the editor and/or art editor.

Binding/trim: The first ten hand-bound copies are sent from the printer for final check on printing, binding and trim. A copy goes to the Director (Curriculum Development) for approval to distribute.

Clearance: Clearance for despatch is given to the printer by the Education Officer.

* * * * *

Production processes/specifications*

Costing. This is the main concern in the production process and is based on the specifications of data provided by the editors and production staff. It comprises:

1. book trimmed size

* Extract of a summary from the draft report of the Manila Seminar

2. number of pages
3. number of colours
4. number of printed copies
5. type of binding
6. kind of paper
7. method of packaging
8. writers' fees
9. typesetting and art requirements
10. administrative costs

Quality control. This begins with the preparation of the manuscript and the maintenance of high standards is assured by regular evaluation of authors and editors. IMC employs quality controllers to monitor the printing and binding processes.

Print-runs. The number of copies is established by the policy of a 1:2 ratio of supply, plus an established number of reserve stock and replacement copies.

Editorial processing. As soon as a manuscript arrives, editing begins. Consultation meetings are held between writers and editors. After content editing, to check that the material complies with set requirements, the manuscript is marked up and typesetting and art work proceed.

Design. There are specifications to be followed according to the grade level and subject matter of each publication. The number of pages is linked to the number of hours the book will be used as books are structured according to the teachers' presentation of the lessons that last for 150 days in one school year. All design work is carried out in-house. Illustrations are contracted out.

Procurement procedures. As described in the next chapter the government sets certain rules. Printers are categorized according to size and must pre-qualify before they can be awarded a printing contract. The binding method is regulated. There is public bidding for private printers and the lowest bid is the winner. Book covers may be printed in full colour. Inside pages are either one or two colours.

Typesetting/Printing. Phototypesetters and IBM typewriters are used. Both letterpress and offset are used. IMC contracts those printers with web offset equipment for its mass printing.

Chapter Eight

PRE-QUALIFICATION PROCEDURES FOR PRINTERS AND PRINTING COSTS

Purpose of pre-qualification

by Job Mangente, Chief, Procurement Section, IMC,
University of the Philippines, Quezon City, Philippines

The pre-qualification of printers has been adopted by IMC since 1976 at the start of the first phase of the eight-year government textbook production programme. Its main purpose is to determine the capability of prospective bidders to perform a particular contract satisfactorily on the basis of their experiences and past performances on similar contracts; and capabilities with respect to personnel, equipment and plant, and financial position.

During the early part of the Project a massive campaign for the participation of printers in the project, through pre-qualification, was conducted. Invitations to pre-qualify were published in newspapers of general circulation and individual printers were sent invitations. Later on when several printers were already pre-qualified

75

... the pre-qualification of printers has become a continuing activity of the Manufacturing Division of the IMC.

and until the present, the pre-qualification of printers has become a continuing activity of the Manufacturing Division of the IMC.

Procedures. Printers who wish to participate in the bidding for the manufacture and delivery of textbooks and other instructional materials are required to submit a duly accomplished, certified and duly sworn 'Printer's Pre-Qualification Application Statement' together with supporting documents required in the application.

Inspecting
plant facilities

Upon receipt of a printer's pre-qualification application, the Manufacturing Division will conduct an ocular inspection of existing equipment and facilities of the applicant. The inspection of plant facilities is done at the convenience of IMC. All costs incurred in the inspection are for the account of IMC unless there is a request for immediate inspection by a printer, in which case all inspection costs are borne by the printer. The results of the inspection and the documents submitted are the basis for the evaluation of a printer's manufacturing category.

76

The category of a printer and the maximum bid ceiling are based on 50 per

cent of plant output, which is determined by the printer's printing and binding capacity. Since the output cannot exceed the binding capacity, the category is generally based on 50 per cent of the binding capacity alone, over a four month manufacturing and delivery period. The assumption is that the pre-qualified printer will devote the remaining 50 per cent of plant capacity to in-house jobs or other outside contracts.

Printers are pre-qualified under the following categories:

<u>Category</u>	<u>Plant capacity</u>
A	2,000,000 and above copies
B	less than 2,000,000 copies
C	less than 1,000,000 copies
D	less than 500,000 copies
E	less than 50,000 copies

Upon completion of the evaluation, the results are sent to the Pre-Post Qualification, Bids and Awards Committee of the Ministry of Education, Culture and Sports for endorsement. Once approved, a notice of pre-qualification is issued to the printer. This entitles the pre-qualified printer to participate in the bidding for the manufacture and delivery of textbooks and other instructional materials.

Pre-qualified printers are allowed to bid only up to 50 per cent of their actual

manufacturing capacity, otherwise known as the maximum bid ceiling. Printers under category 'E' may bid as a group on the basis of their combined capacity. The undelivered copies of textbooks contracted on a previous award and/or the quantity of an uncompleted contract is deducted from a printer's maximum bid ceiling, and the difference becomes the maximum bid ceiling for the next bidding.

An annual review and re-evaluation of printers manufacturing capacities and performance are conducted, after which a notice of updated pre-qualification is issued. Pre-qualified printers acquiring new printing equipment or selling or decommissioning old equipment are advised to notify the IMC for a re-evaluation and updating of their manufacturing categories.

* * * * *

Assessing printing costs - Sri Lanka

by B. Nissanka Jayawardhana, Publisher,
Educational Publications Department, Colombo, Sri Lanka

The Educational Publications Department, of the Project Ministry of Educational Services (PMES), calls for quotations from printers. Printers base their quotations on the following:

- | | | |
|---|--------------|-------------|
| A | Cost of | 1. Paper |
| | Materials 2. | Cover Paper |

- | | | | |
|---|--------------------------|-----------|-----------------------------------|
| | 3. | Ink | |
| | 4. | Negatives | |
| | 5. | Plates | |
| | 6. | Wire | |
| | 7. | Glue | |
| B | Cost of | 8. | Composing |
| | Machine Time | 9. | Artists' layout |
| | | 10. | Camera, negatives,
platemaking |
| | | 11. | Offset machine |
| | | 12. | Folding |
| | | 13. | Binding |
| | | 14. | Cutting |
| | | 15. | Packing |
| | | 16. | Transportation |
| C | Machine
Depreciation | | |
| D | PMES Percentage
Added | | |

Into the printing costs thus derived,
must be added the following editorial
charges:

Additional
costs

1. Advisory Board fees; and
2. Writers fees, royalties etc.

When all the expenses are calculated it is
required to add 50 per cent to the cost
arrived at. The percentage added by many
private publishers is sometimes as much as
200 per cent.

A Production Unit editor then prices the books, taking into consideration the cost of printing.

People, procedures and processes*

Table. Considerations to be taken in the production process

PEOPLE	PROCEDURES	PROCESSES
Recruitment - qualifications criteria	Proofreading Approvals	Costing - data collection specifications quantification
Retention - training development career prospects	Quality control Project direction Project execution	Procurement - development services . research . writing . editing . illustration . design materials . equipment . paper . binding
Motivation - communication initiative team approach performance assessment		printing services . typesetting . processing . printing . binding

* Report of a working group - Regional Seminar on the Production and Distribution of Textbooks and Other Teaching/Learning Materials, Manila, Philippines, 12-22 August 1985.

Part Three

WAREHOUSING AND DISTRIBUTION

Chapter Nine

EDUCATIONAL MATERIALS DISTRIBUTION

An outline of distribution considerations*

The ultimate aim of all countries is to get books and other instructional materials from the printer to the user.

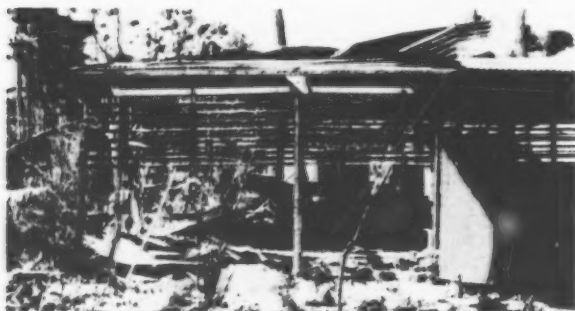
The most commonly used distribution methods in the region are as follows:

- a) direct distribution to schools from the central warehouse using the postal services;
- b) direct distribution to provincial offices/warehouses, and from there to schools;
- c) establishing outlets using such agents as book sellers, distributors or printers who either distribute to schools directly or through their existing networks.

If distribution is handed over to agents, they become responsible for getting materials to schools on time and for solving

Using
distribution
agencies

* Report of a working Group



Typhoons have a devastating effect on schools in the Philippines. Teachers and pupils, however, adapt to the situation

Regional warehouses are sturdily constructed to withstand the elements

Photos: Florina S. Espiritu Santo



the distribution 'headaches'. At the school or district level there is an advantage in using agents such as parents' associations because of their interest in learning materials and their concern with their children's learning. There are, however, some disadvantages to handing over the distribution to agents:

1. It is difficult to monitor and check the system.
2. The co-ordination of the activities of several agencies must be constantly followed up.
3. It can become costly.

If the decision is taken to use distribution agents, it is wise to conduct public bidding to lower the cost, increase efficiency and ensure ease of communication between the publisher and the agents.

Physical processes. Most countries have order receipt/invoice raising processes; facilities for the bulk storage of books; varying methods of packaging and checking books; a wide variety of systems used to transport books to 'customers' (in some countries) schools must come to the store to collect their books).

Warehouse management. Fixed steel shelves are the optimum, with books stored in cartons according to subject and level - marked with clean signs. Stock cards are usually kept on each shelf and kept

It is generally agreed that bulk storage is good as it saves time on repacking and counting.

up-to-date according to incoming and outgoing stock. A stock register is also kept. It is generally agreed that bulk storage is good as it saves time on repacking and counting.

Distribution management. The method of distribution regulates the size of the packages. Only small parcels may be sent through the postal services or by porter and medium sized packages by air freight. On the other hand, entire provincial orders may be shipped by sea in some countries. Most countries favour the use of trucks to transport materials by road if there is a good road system.

Safety. Precautions should always be taken against fire, including the organization of fire drills. The observation of correct stacking and handling techniques is also important.

* * * * *

The textbook distribution programme - IMC

by Marietta N. Abcede, Officer-in-Charge, Distribution Division, IMC, University of the Philippines, Quezon City, Philippines

The main objective of the distribution programme of IMC is to establish and ensure an effective system of textbook distribution in order to supply the public school system with a continuous supply of textbooks at the elementary and secondary levels at the textbook/pupil ratio of 1:2. The programme is carried out by the IMC Distribution Division together with the Ministry of Education, Culture and Sports' (MECS) 13 regional and 127 division offices nationwide.

To further strengthen the existing warehousing capabilities of these offices and to provide more secure storage for the millions of books the provincial and city divisions handle, some 54 new textbook warehouses, including a central warehouse at IMC, were built from 1976 to 1980 and 26 additional new warehouses were due for completion within 1985.

Strengthening
warehouse
capabilities

Warehousing. Textbooks and other instructional materials from the printers are received, stored and dispatched from the IMC Central Warehouse prior to delivery to the MECS regional and division warehouses. The Central Warehouse's maximum storage capacity is about 2.5 million textbooks and some 5,000 paper rolls. Books are packed in

85

cartons ranging from 50-80 copies per box and are stacked on metal racks and wooden pallets. The regional and division warehouses' storage capacity range from 45,000 to 700,000 books.

Distribution operations. The four sections handling distribution are: Statistics; Traffic; Warehouse; and Field Coordinating Unit.

Gathering data

Statistics handles collection, recording and analysis of actual enrolment and teacher data gathered annually (per school year) from provincial and city divisions nationwide and determination of print orders for each book (first, reprint and revised editions). This includes additional provisions for reserve stocks, to maintain the 1:2 book/pupil ratio during the three years the book is expected to be used.

Traffic handles the preparation of textbook allocations per province or city, based on data provided by the statistics section; prepares the requisition and issue vouchers (RIVs) covering these allocations (book titles, quantity, cost and consignees); schedules the dispatch of books for release to commercial forwarders contracted by IMC through public bidding (door-to-door services).

Warehouse handles operations and documentation relating to receipt, storage and release of textbooks, equipment and

other instructional materials; looks after the maintenance of materials handling equipment (forklift, grablift).

The Field Coordinating Unit conducts field visits and surveys to monitor textbook deliveries and utilization; assists the field officers in resolving problems and matters related to distribution; assists in the retrieval of RIVs as acknowledged and signed by officials of the provincial or city divisions.

Regional/Division Warehouses. Each field warehouse has its designated service area, and is headed by a Regional or Division Supply Officer. Once the books arrive at the warehouse the Supply Officers plan and prepare for the distribution to central schools in the districts; property custodians from the central schools distribute the books to the schools. Ideally the objective is to make the new books available to the schools at the opening of the classes.

Ideally the objective is to make the new books available to the schools at the opening of the classes.

Distribution grants. Lack of funds was found to be the main cause of delay in the distribution process, especially at the provincial level. Hence a major portion of the distribution fund component was

87

programmed to finance and sustain the regional and division offices' distribution operations and management.

Through a yearly Memorandum of Agreement (MOA) with IMC, financial grants are released to regional offices to cover warehouse personnel salaries, supplies and materials, maintenance, travel and freight. The MOA also lists the responsibilities of all the offices concerned in the distribution of books, including the appointment and supervision of warehouse personnel and disbursement/liquidation of fund grants.

There is some problem in the uneven distribution of project textbooks at the school level. Sometimes the 1:2 ratio is not followed or schools do not have complete sets or series of books for a given subject area. This requires more direct monitoring and supervision at the district and school level.

Radio communication network. In addition to IMCs field co-ordinators who regularly monitor distribution activities at the provincial level through field visits and surveys, the Project also provided the MECS regional and division offices with single-side band radios. This communications network enables the field and the IMC office to maintain contact and send messages relating to textbook deliveries or other pertinent distribution matters.

Assessment of distribution procedures

Book loan. Textbooks are presently given free of charge to the clientele. A study on charging for the textbooks is now being undertaken to make the books more valuable to the users and to encourage them to take better care of the books. However the economic situation means that it is untimely to ask parents to meet these extra expenses.

Warehousing. There are 154 warehouses in the network with capacities of from 700 to 9,000 cartons of books. The floor areas of the warehouses constructed by IMC varies from 42m² for the smallest, to 210m² for the biggest. Twenty-five per cent of the area is for office space. These warehouses were turned over to the region or provincial/city division offices concerned.

Freight forwarding. The three modes of transport available are land, sea and air transport. IMC uses overland transport for about 40 per cent of the total textbooks distribution per year, while the rest is a mix of overland and sea transport.

Accountability. This has become a problem because, in some cases teachers, who are ultimately responsible for the textbooks, would rather keep the textbooks under lock and key than issue them.

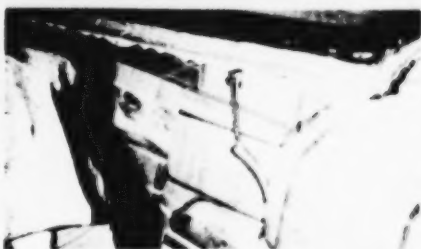


No matter what form of transportation is used; if the books are protected and packed in strong cartons, the teachers will receive them with a smile



Photos:
Florina S. Espiritu Santo

90



Insurance. IMC imposes this surety for textbooks on the forwarders to safeguard against loss or damage.

Packaging and repacking. Specifications are laid down by the Distribution Division as a result of their experience with methods of handling, weather conditions and other relevant considerations. Based on their recommendations, IMC has increased the bursting strength of cartons and improved packaging materials requirements.

... IMC has increased the bursting strength of cartons and improved packaging materials requirements.

Repacking is necessary because of the differences in the sizes of schools. To minimize repacking and still suit the size of a school, the allocation by cartons is rounded off. The policy is to come as close as possible to the size of classes when allocating cartons of textbooks. It is more economical not to open than it is to repack.

Training field personnel. IMC actually has informal control and technical supervision of the field personnel in the warehouses. Because funds are granted by IMC for the salary of field warehouse personnel they identify themselves with IMC rather than with the regional or division offices concerned. IMC conducts seminars.

Providing
incentives

A Supply Officer Seminar with the theme 'An empty warehouse is a good warehouse', was conducted and found to be effective. Those who completed the seminar were given incentive T-shirts.

* * * * *

Distribution and warehousing - Australia

by Alan Mayberry, Senior Materials Production Officer,
Education Department of Victoria, Australia

[In Australia, educational materials, including textbooks, are either produced commercially or by State Government Printing Offices (GPOs), and, in most cases, sold to schools].

Warehousing. Storage space is very expensive and all publishers try to market material quickly to avoid having large stocks in warehouses. GPOs will only keep limited supplies of each book produced, so distribution is completed almost as soon as material is printed. If books do not sell, they are pulped or sold at discount prices after a couple of years to provide extra storage space. The GPO keeps computerised records of the numbers of books available and monthly sales records. These are used to determine when reprints are needed. Both the Education Departments and Government Printers have officers in charge of distribution to monitor when and where the materials are dispatched.

In the State of Victoria, the Education Department has a weekly mail-out service to all schools in the State. This mail-out includes new curriculum materials, notices from the Director-General and selected community service announcements. Usually one copy of each item is included in each envelope, but on some occasions two, or more copies of a curriculum guide are sent. The cost of this distribution is free to clients.

Using postal services

Material printed by the GPO is sent through the postal service at a reduced rate along with the Education Gazette once a fortnight. The GPO also employs a courier service to deliver bulk copies of readers to all schools in the State.

Commercial distribution agencies are used to distribute commercial publications. They charge a percentage of the retail price for their services. Fees are not cheap, but many publishers prefer to pay this fee rather than set up their own distribution agencies.

Distribution. This is carried out by:
(1) Australia Post - if materials fit into envelopes; (2) Road courier - if books are in cartons addressed to specific schools; (3) Rail - to be collected by schools at their local railway station; and (4) Shipping/Air - but only used by commercial publishers to import books printed overseas.

Distribution Officers pack parcels to be sent to schools. Automatic packaging and addressing machines help speed this operation. New equipment at the GPO will enable orders to be processed and packaged according to number and postal district. Apart from reducing packing time, this will reduce postal charges. Sometimes regional education officers distribute materials to schools in their own district. This is usually done if the teachers require in-service training before using the books. Insurance of materials in transit is usually only taken by commercial publishers as costs are prohibitive.

Complementary copies

Apart from the dispatch of materials to schools, there is a separate dispatch of material on a complementary basis. The number of copies sent out on such free distribution varies from 50 to 250 copies. They are sent to senior administrators, libraries for file copies, teacher training colleges and universities, newspapers and the media, consultants and regional directors.

The trend in packaging is towards clear plastic with support bands, if several books are in a parcel.

Packaging. The trend in packaging is towards clear plastic with support bands, if several books are in a parcel. Address

information is packaged inside. Rolled up books are not popular as the books are hard to lie flat when opened and edges are often damaged in transit. Posters are folded and posted in envelopes, as tubes are expensive and add greatly to the costs. The GPO boxes material to be delivered in bulk to schools. There are usually 200 books in a box. A receipt system is operated by the Government Printer to ensure that boxes of books are delivered. Such a guarantee is not possible with small mailings.

Paper envelopes are the most risky marketing parcel.

Paper envelopes are the most risky marketing parcel. Cardboard boxes and shrink-wrapped plastic wrappers are more efficient but more costly. Schools are encouraged to complain if parcels arrive in damaged condition. Any damaged goods are replaced if the initial print runs were sufficient. Schools tend to telephone the GPO direct to ask why material has been delayed or insufficient numbers have been sent. Overall, distribution is slow, inefficient and costly. It is a major obstacle to publishing efficiency.

Replacement
copies

* * * * *

The role of School Publications and the Government Printing Office in New Zealand

The School Publications Branch has responsibility for arranging for the storage and distribution of texts as they are printed. Depending on the nature of the publication, different procedures may be involved, but with publications such as mathematics texts intended for pupil's use in primary schools, arrangements are made for the printer to consign bulk lots to each education board store. There the stores officers break down the bulk lots and prepare packages for consignment to each school in accordance with a pre-arranged schedule. The education boards arrange distribution to schools in the most economical way possible. Mostly the distribution of the less bulky material is handled by the GPO, with bundles of various sizes being either shrink-wrapped, or strapped and boxed with a postal label attached. Dispatch then takes place through the postal system.

Addressing. Information for postal labels is stored in the GPOs computerized addressing system, which generates the printed labels. School Publications updates the details of addresses, and supplies information on the distribution pattern (i.e. numbers of copies of a publication per address) to the dispatch offices. It is hoped that, for standard distributions in the future, the address system will print the latter information directly on the labels.

Assessing numbers. In determining the quantities for each print run, School Publications takes account of the foreseeable demands for new schools and essential replacements over the next few years, so that there is a reasonable period of time between reprintings of a text, should these be warranted. This reserve stock may be stored centrally and distributed as required, or held in education board stores and distributed from there as justified. Decisions on which method to follow may relate to the bulk of the text or materials and the amount of space likely to be available in the board stores.

... the department has a policy of producing stock that will last for at least five to seven years, thus necessitating fewer reprints.

Textbook changes and textbook 'life'. Because the Office of the Treasury expects textbooks to be in use for 12 to 14 years [which infers no major syllabus changes], the department has a policy of producing stock that will last for at least five to seven years, thus necessitating fewer reprints.

* * * * *

Geographical constraints in Papua New Guinea

Distribution of materials is the most difficult problem to solve, the main problem being to guarantee a continuous supply of books through a provincial delivery system to remote schools.

Topographical difficulties in distribution

There are a number of contributing factors that make the distribution process difficult. Naturally the majority of schools are located near villages in rural areas. At times materials do not arrive in schools due to their remoteness. Because of the underdeveloped road systems and the mountainous terrain, the bulk of curriculum materials are sent by air [including, when conditions warrant it, delivery by helicopter]. The high cost of air-freighting the materials places stress on the budget. Although despatch by sea has been tried in order to reduce cost, the time taken and the loss of materials in transshipment has rendered it ineffective.

Staff training. Twenty Provincial Materials Supply Officers (PMSOs), one in each province, co-ordinate materials distribution from provincial stores to schools. Some effective training has been carried out for these officers in budgeting and collating statistical data on materials available in schools in order to help provincial planners order materials, either locally or overseas.

Considerations for DISTRIBUTION



NEPAL

FOR FREE DISTRIBUTION

CENTRALIZED CONTROL

Packed in sacks and bags, 50-100kg per bag

TRUCKS

PLANES

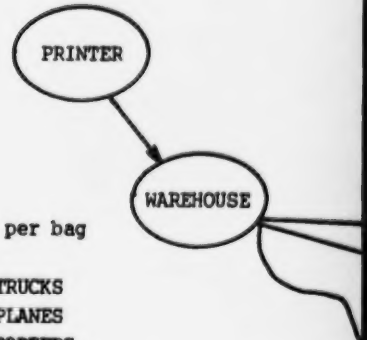
Cheapest means by - PORTERS

DISTRIBUTION COST = 20% of book cost

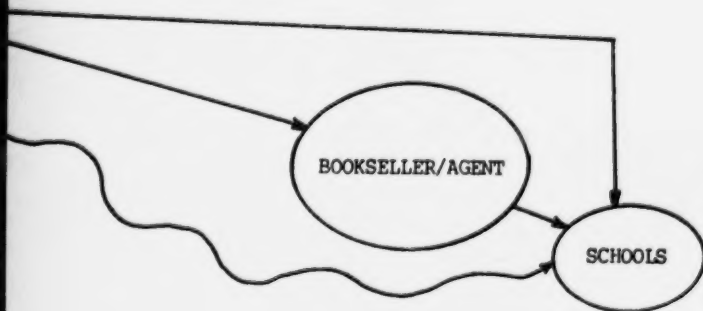
INSPECTORS GATHER RECEIPT

PROBLEMS

1. Mainly transport, rather than management
2. Packaging
3. Commissioned agents



SALES



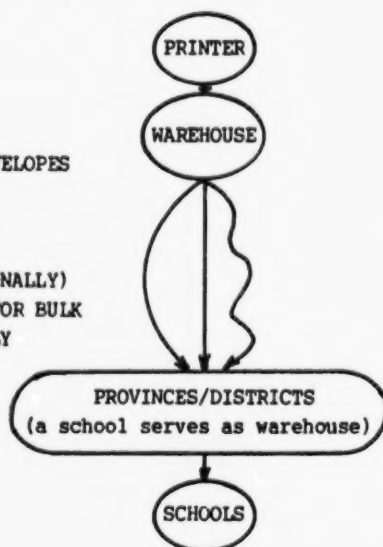
SOLUTIONS/INNOVATIONS

1. Distribution done as quickly as possible during equitable seasons
2. Improved packaging system
3. Abolition of middlemen to reduce costs

PAPUA NEW GUINEA

PACKED IN CARTONS
OR SPECIALLY DESIGNED ENVELOPES

(OCCASIONALLY)
BY SEA FOR BULK
SUPPLY



PROBLEMS

1. Illiterate warehouse staff
2. Costly means of transport
3. Situation in schools rarely known to central authority (whether books ultimately reach schools in correct number/titles or not)

HIGHLY CENTRALIZED CONTROL AND MONITORING AT
PROVINCIAL/DISTRICT LEVEL THROUGH MAIL SYSTEM OR VISITS

(MAIN METHODS OF TRANSPORTATION)

AIR CARGO

HELICOPTER SYSTEM

POSTAL SERVICES

FREIGHT COST = 20% of material cost

SOLUTIONS/INNOVATIONS

1. Restructuring to be able to appoint qualified staff
2. Using sea transport to reduce cost
3. Provide annual workshop in distribution for provincial staff
4. Increase textbook supply to schools and allow schools to sell to parents/pupils

PHILIPPINES

FOR FREE DISTRIBUTION

1:2 book/pupil ratio

PACKAGING: By printer .039 cu m Carton

Textbooks: 50-80 copies per carton -- 19-25 kg per carton

Workbooks: 100 copies per carton -- 12 kg per carton

For extra protection: sealed in plastic bags of
10-20 copies per bag

TOTAL DISTRIBUTION COSTS: 30% of book value

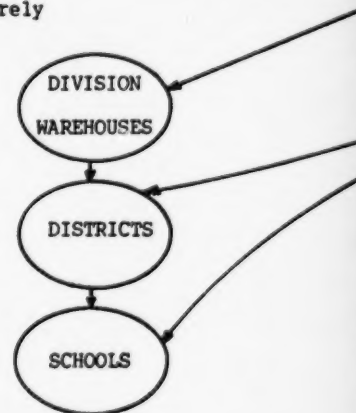
LAND (40% of Vol.)

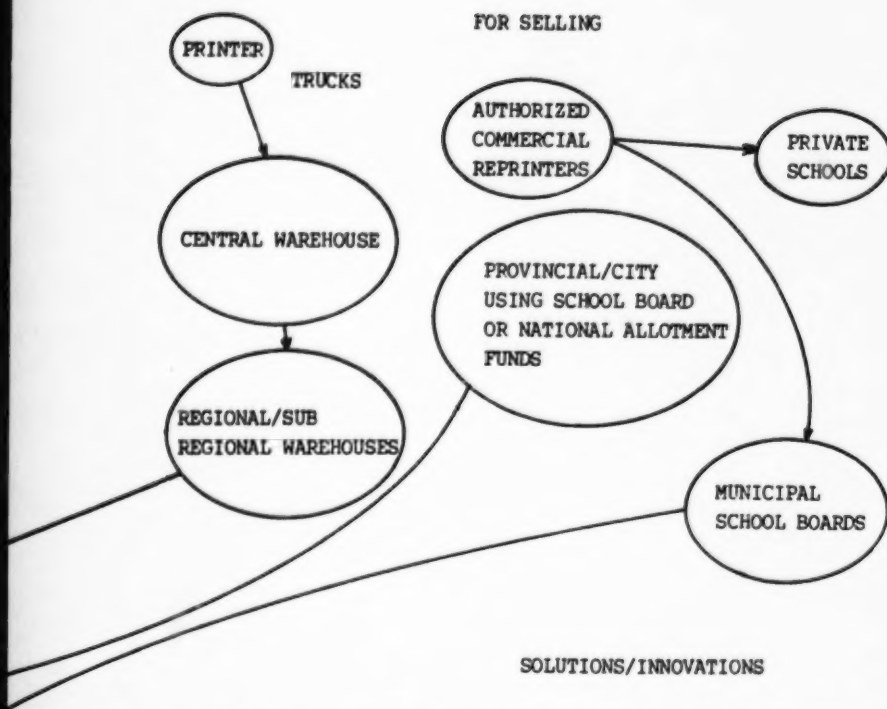
MIX OF LAND/SEA (55%)

MIX OF LAND/AIR (5%)

PROBLEMS

1. What is happening in schools is rarely known to IMC
2. Poor communication system
3. Backlog in document/RIV retrieval
4. Uneven distribution in schools, especially in the high schools





1. Improve communication systems by communicating as far as the district/end-user school levels
2. Adopt computerization as soon as possible
3. Continue fellowship training of staff
4. Expedite absorption of field warehouse personnel to cut cost
5. Standardized book size to 7 in. x 10 in.
6. Rounded off allotment policy to reduce repacking leading to reduced costs

105

THAILAND

FOR FREE DISTRIBUTION:

CENTRALIZED CONTROL

MONITORING THROUGH MAIL SYSTEM AND VISITS

TRUCKS

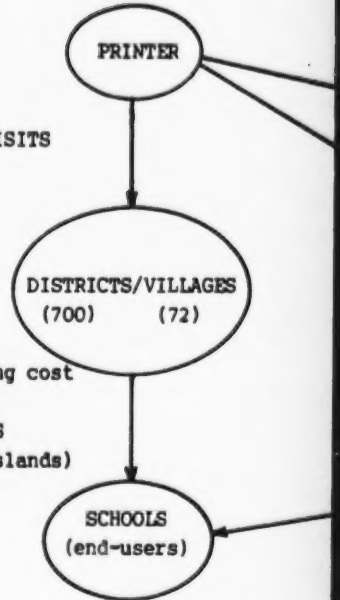
TRAINS

DECENTRALIZED CONTROL

DISTRIBUTION COST = 35-50% of printing cost

MOTORCYCLES

BOATS (3 islands)



PROBLEMS

1. MOE not always sure of what is happening in schools
2. Lack of supplementary readers
3. Monopolized printing

FOR SELLING:

PACKED IN UNIFORM CARTONS

```
graph TD; A[ ] --> B((WHOLESALESAERS (300))); A --> C((RETAILERS (2,000))); B --> C;
```

WHOLESALESAERS (300)

RETAILERS (2,000)

SOLUTIONS/INNOVATIONS

1. Spot checks made on schools
2. Standardizing size of books to reduce costs and provision of free supplementary readers
3. Government encourages private publishers to develop, produce and distribute supplementary readers

Chapter Ten

BOOK PROMOTION AND MARKETING

Australia. Advertising brochures containing details of new and existing books and prices are sent to all schools. A tear-off order form is included. Each year a catalogue is put out for all schools that gives details of all publications available, the cost and where they may be obtained. The GPO puts out a similar catalogue of books for sale. The sale of books to schools is seasonal, with the bulk being sold during January - March to coincide with the start of the school year. Reading material for students tends to be distributed twice a year.

There are few people in schools in December, January, May and September so little marketing is done at these times. There is usually a last minute rush to have materials in schools before these holidays commence. Often release dates are pre-planned to tie in with radio and television promotions and in-service seminars. It is crucial to plan dispatch so

that books are in schools when back-up material is given.

* * * * *

Radio
communication

IMC, Philippines. Because IMC has a captive market, it has only a little of these activities. The fact that the merchandise produced by the agency, which are mainly textbooks, are given free, makes it easier for the consumer to accept. However a study on IMC marketing is now ongoing.

Communicating with 40,000 schools requires much time. On the regional and divisional levels, however, a radio communications network was installed about eight years ago. The radios are pre-transistor and the problem that now only a small percentage are in working order. At the school level therefore, except for the areas visited by IMC staff, it is unknown whether books are arriving or not. With the grants provided, it is assumed that books arrive in the schools.

* * * * *

'Resources management' in New Zealand. Under the heading 'resources management' the School Publications Branch investigates how publications are received in schools, how teachers and students are informed of their arrival within the school, what steps are taken to introduce them and what arrangements are made for their storage.

New and existing titles are advertised on the back cover of the regular Education Gazette and in a section called 'Resources for Learning'.

Advertising
new titles

In school visits, checks are made on how resources are made available. While the cost of communication is relatively cheap, there is still room for improvement in advising teachers that new materials are available.

The process of text development and production is a complex one in any nation, and particularly difficult in the Third World. Infrastructures are often weak and the demands on skilled manpower great. The relationship between basic curricular and other educational decisions, the publishing enterprise, and the distribution apparatus is close and often neglected.

Third World nations must understand not only the importance of textbooks as part of education, but also the technical aspects of textbook development and production. There exists a variety of mechanisms for producing textbooks, but the key element is an understanding of the totality of the effort and an appreciation of its complexity.

(Altbach : 1986)

111

Maori Resources

The following publications in Maori are available, unless stated otherwise, from the Department of Education. Future productions are listed, as are Departmental resources which are available from the Government Printer.

Early Language

He Parapara series
14 single titles to date

E Hika
Te Tereina
Pōwhiri
Ko Ngā
Te Tamu
He Kai
He Ape
Nānaki
Pipiri
Rūru
Nā Te
He Kari
Ko Mā
Ngā Ma

Comment

*Recommended for primary and secondary classes where Maori is taught as a second language.
*Recommended as supplementary readers for children fluent in Maori at primary school.
*He Parapara is an on going series aimed at children's interest and enjoyment of Maori at the

Books

Textiles

Form 3

Form 4

Form 5

Form 6

Supplies

Te Tamu

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

Te Wha

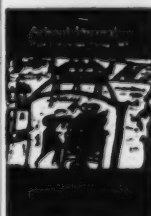
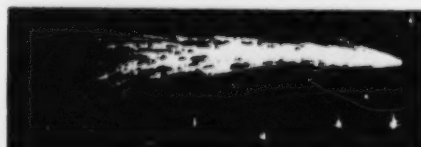
Te Wha

Te Wha

Te Wha

Halley's Comet

in the School Journal

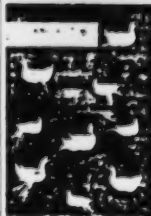


In Part 2 Number 3 1985:

"King of the Sky" gives the background on comets—what they are, where they come from.

"Halley's Comet, 1910" is a collection of reminiscences from people who saw the comet on its last appearance.

The cover of the Journal has details from the Bayeux Tapestry which show Halley's Comet as it appeared in 1065.



In Part 3 Number 3 1985:

"The Night of the Comet"—Annela Betsch tells an amusing story from her husband's childhood about the night in Yugoslavia in 1910 when he saw Halley's Comet.

Part Four

SOME CASE STUDIES

Chapter Eleven

THE PHILIPPINES TEXTBOOK PROJECT

by Pacifico N. Aprieto, Officer in Charge, IMC,
University of the Philippines , Quezon City, Philippines

The inadequacy of instructional materials began to be felt in the public schools in the Philippines following the student boom after the Second World War when enrolment outran the provision of school buildings, hiring of teachers and the availability of school resources. By the 1960s, the supply level of the most basic instructional materials had reached an alarming low. Consequently, with assistance from the United States of America, the Philippine Government mounted a crash programme which produced millions of copies of hastily written and printed textbooks.

The relief provided by this American-assisted programme, however, was short-lived. Towards the middle of the next decade, the gains made had dissipated. The textbooks provided had all but disappeared and supply had once again sunk to as low as one textbook for every ten pupils in most classes at primary and secondary level.

113



Clearly, a more permanent solution was needed to arrest the continuing deterioration of the textbook situation.

The general situation. The Philippine educational system consists of a compulsory six-year elementary level, a four-year secondary level, and a four-year tertiary level. In 1974, about a quarter of the total population was enrolled in the schools and universities.

About 95 per cent of the pupils attended public primary schools. The teaching force was generally well trained. More than 95 per cent of the 230,000 public elementary schoolteachers were fully qualified and about 75 per cent of them were four-year college graduates. The pupil/teacher ratio was 31:1 and school facilities were considered adequate.

About 46 per cent of the secondary school age-group attended school, more than half of them in private schools. Pupil/teacher ratios were reasonable; 34:1 in private schools and 38:1 in public schools. As in the public elementary school, teachers were well qualified. About 95 per cent of them were college graduates.

There are eight major local languages and some 80 dialects in the Philippine archipelago; Pilipino, which is based on Tagalog, one of the major languages, is the national language and is understood by the

majority of the people. English, however, is the chief language of the government, business, mass media and the schools. Pilipino, English and Spanish are the official languages for government transactions and the courts.

A bilingual education policy was adopted in 1974, under which English became the medium of instruction for all science and mathematics courses and Pilipino became the medium for all other subjects for all grades in the elementary and secondary levels. Earlier, the vernacular was the medium of instruction in the first two grades and English thereafter. One objective of the language policy was to create a cohesive nation through development of a unifying national language while maintaining the widely spoken English language which is suited to mathematics and science.

Textbooks supply

A Textbook Board under the Ministry of Education, Culture and Sports (MECS) controlled textbook development for the public school system. It invited submission of textbook manuscripts from publishers and authors and approved about three titles for each grade level for use in elementary and secondary schools.

To a limited extent, manuscripts were also written by government curriculum resource centres such as the University of

the Philippines Science Education Center (UPSEC), the Ministry's own Social Studies Center (MECS-SSC), and the Language Study Center at the Philippine Normal College (PNC-LSC).

A textbook production service at the MECS contracted private firms for the printing of textbooks under guidelines set by the Textbook Board, and private freight-forwarders for textbook delivery, nationwide. Textbooks were distributed on a loan-free basis to pupils.

Studies showed that the process for developing and distributing books was unsatisfactory. Supply was irregular, insufficient and often of poor quality. Development of new textbooks for publication took an average of six years. It was estimated that in the public schools in every subject there was only one book for every 9.8 pupils in grades I - IV; one for every 11.5 pupils in grades V and VI; and one for every 8.5 pupils in secondary schools.

Most available textbooks were substandard physically and pedagogically.

The problem, moreover, was not limited to quantity. Most available textbooks were substandard physically and pedagogically. Because they were not provided on a regular basis, books were tattered and outdated. Illustrations were often more than ten years old. Texts generally omitted to mention

117

Philippine progress in agriculture and industry, and of developments in government, health, science and international events during the last decade.

Because they were selected from different series, different authors and different publishers, textbooks lacked continuity and reinforcement. A textbook for one grade did not proceed logically from the textbook of the preceding grade; nor was there a rational relationship between the language level assumed in one textbook and that in another. There was also little attempt at relating subjects, such as health and science, to each other.

A survey of the outcome of elementary education revealed that the average elementary school graduate had learned only two-thirds of what he was supposed to learn. Moreover, the subjects he seemed least proficient in were those considered the basis of elementary education - reading, mathematics and language.

The lack of textbooks was traced mainly to the absence of an institution to develop, supply and distribute textbooks to schools

The lack of textbooks was traced mainly to the absence of an institution to develop, supply and distribute textbooks to schools on a regular basis.

on a regular basis. It was found, for example, that in 1967, at the end of the United States-assisted textbook production programme, 6-8 million books were being provided to schools annually. After the phase-out of external assistance, however, the output rapidly declined to 1 million books in 1973 and 60,000 in 1974.

Many of the qualitative shortcomings of textbooks were also attributed to the lack of an effective institution that could direct and co-ordinate textbook development among curriculum planners and authors and the testing of prototype books prior to large scale purchase by MECS.

World Bank study

On the basis of a project request prepared by the Philippine Government, with the assistance of the UNESCO/IBRD Co-operative Programme, the World Bank sent a mission to the Philippines in 1975 to appraise a textbook project. Among the weaknesses of the educational system reported by the mission were a serious lack of textbooks and other teaching aids.

The mission also noted that although salaries and other personnel costs made up 90 per cent of public operating expenditures on education, hardly any provision was made for textbooks and other instructional supplies. As a result, the well-qualified teaching staff were handicapped in their

119

Developing
institutional
capacity

work. They had to use rote learning, resulting in low quality, which manifested itself in poor examination performances and high drop-out and repeater rates.

The mission recommended approval of a loan of \$US 25 million to finance a textbook project which would have a two-fold purpose: (a) to develop the institutional capacity for the continuous development and supply of relevant textbook materials in the public school system, and (b) to increase, over the next four years, the available supply of textbooks in the schools.

In terms of institutional development, the project would provide technical assistance, equipment and facilities to (a) reorganize and strengthen the management function of the existing Textbook Board; (b) strengthen the curriculum development centres to develop curricula, write, test and revise textbooks in the five principle subject areas; and (c) establish a textbook distribution system consisting of one national and 107 provincial and sub-provincial warehouses.

In terms of textbook supply, the project would develop 75 of the 109 new textbook titles and manufacture and distribute 27 million textbooks as a first phase of an eight-year textbook production programme.

Cost reduction

The strengthened institutional framework and management for continuous curriculum

development and textbook production would, among other things, result in a 40 per cent reduction in the average cost per book and a substantial increase in the quality of books produced.

The increased supply of books would enable the pupil/book ratio per subject to be reduced from 10:1 to 2:1. This would not only help raise individual learning achievements, but would also equalize educational standards between urban and rural areas through equitable distribution of uniform textbooks throughout the country.

Pupil/textbook
ratio 2:1

The Textbook Project, or the Third IBRD Education Loan in the Philippines, became effective on 1 July 1976.

Project implementation

The initial implementation of the textbook project was undertaken by the Educational Development Projects Implementing Task Force (EDPITAF), a special body created by a presidential decree in 1972 under MECS to supervise all foreign-assisted education development projects. It organized the project staff, called the Textbook Board Secretariat (TBS), to serve as the central directing and co-ordinating agency for strengthening textbook development, publishing and utilization. As originally planned, TBS was placed under the Textbook Board's supervision in 1979.

121

As project implementor, TBS (a) provided editorial assistance to authors; (b) co-ordinated the field-testing of textbooks; (c) designed and prepared manuscripts for printing; (d) caused textbooks to be printed; (e) distributed textbooks to the schools through the warehouse network; (f) evaluated the programme, particularly the impact of the new textbooks on pupils' achievement; and (g) planned and co-ordinated teacher training programmes on the use of the new instructional materials to be generated by the project.

Headed by a full-time director, TBS was organized into five operating divisions: editorial, production, manufacturing, distribution, and training and evaluation. The two supporting offices were the administrative office and the office of the controller.

Specifically, TBS would develop the 109 textbooks and accompanying teachers' manuals needed in the public schools at all grade levels from grade 1 to fourth-year high school to teach five basic subjects -

The textbooks would be loaned free of charge to pupils at a distribution ratio of one book for every two pupils.

science, mathematics, social studies, Pilipino and English. The textbooks would be loaned free of charge to pupils at a distribution ratio of one book for every two pupils.

Under grants from the project, three curriculum centres would write and test the textbooks. UPSEC would develop the science and mathematics textbooks; PNC-LSC, the language books for Pilipino and English; and the MECS-SSC the social studies textbooks.

The development cycle would consist of a year for planning and writing; another year for testing and revision; and a third year for final production and printing before distribution of the finished books.

Printers would be selected through international competitive bidding in accordance with government and World Bank requirements. Depending on the book to be printed, printers would be given from six to ten months to procure the specified paper and to print, bind and deliver the textbooks to the TBS central warehouse in Metro Manila. Print orders would range from 1.3 million copies for grade I to 180,000 copies for fourth-year high school. Because of these huge print orders, high speed printing and binding equipment were a must for prospective printers. For this reason, printers had to be prequalified on the basis of their plant capacity.

International
bidding

Similarly, prequalification would be required of paper mills to supply 'Edpita Text', the specified paper stock. The properties of this stock were determined on the basis of the needs of the project. Its tensile strength and weight had to be such

Specifying
paper stock

123

that the books would be able to stand normal handling by children for three years; it had to be sufficiently bright to make the textbooks easily legible in unlighted rural classrooms.

The books would be transported from the central warehouse to the regional and divisional warehouses in the 13 MECS regions by freight forwarders contracted also through public tender. Getting the books to the individual schools would be the responsibility of the division superintendents using funds provided by the project.

Field testing

Field-testing was to be a vital component of textbook development to be done for one full school year in at least 40 representative schools all over the country. Since the textbooks would be used nationwide, it was important to ensure that they were usable and acceptable in every part of the country. The test was also expected to reveal whether the books were appropriate for the target pupils and whether enough material was provided for the time allotment.

TBS editors would provide objective reviews on the basis of the following considerations: (a) consistency of style, facts and presentation; (b) consistency in scope and sequence; (c) relationship of the pupil's text with the teachers' manual, readability or suitability of the vocabulary level; (d) length of the text; (e) accuracy of facts, information and concepts; (f)

suitability of the activities, concepts and graphics to the ability and interest of the pupil; (g) soundness of the principles and underlying assumptions considered in the book; and (h) consistency with prescribed educational objectives, imperatives and the official curriculum. Professional copy editors, book designers and production specialists would assist the editors in preparing the manuscripts for the printer.

The evaluation of textbooks was planned in terms of their effect on achievement. There would be 'before' and 'after' tests of pupils' achievement levels, carried out on a year-to-year basis so that the whole development programme could be continuously reviewed and improved.

... a teacher training programme would precede the introduction of each textbook,...

To ensure that the new textbooks, produced at great expense and effort, would not fall into the hands of unprepared and indifferent teachers, a teacher training programme would precede the introduction of each textbook, emphasizing the acquisition and application of a broad range of skills that would enable the teachers to cope effectively with the new materials and attendant new tasks. Specifically the teachers would be trained to: (a) apply their

Teacher
training

125

skills in curriculum analysis to the study of textbooks for classroom utilization; (b) identify and demonstrate teaching strategies appropriate to specific lessons; (c) manage instructional resources in order to create effective teaching/learning situations and increase the lifespan of educational materials; (d) develop more desirable evaluation instruments for the lessons; and (e) be able to integrate curriculum areas for the development of specific skills.

Project performance

Personnel training

From 1 July 1976 to the official completion date of 31 December 1980, the textbook project represented the biggest book publishing activity in scale and complexity ever undertaken in the Philippines. It incorporated two innovative features lacking in even the largest publishing houses in the world - the mass training of teachers and the evaluation of the effects of the new textbooks on pupils' achievement.

During the period, 84 textbooks and corresponding teachers' materials were developed and tested, over 33 million copies of the new textbooks were contracted for printing and 24.7 million copies actually distributed to the 40,000 schools throughout the country. More than 252,000 teachers and school administrators were given orientation on the effective use and special features of the new textbooks, and a

textbook evaluation system was established and the first titles evaluated.

The TBS was fully staffed and its key personnel and editors were trained in various aspects of textbook and curriculum development in the United States and other countries, together with writers from the curriculum centres.

Except for the central warehouse in Metro Manila, which was nearing completion at closing date, all the provincial warehouses, plus an additional nine (making a total of 54), were finished, augmenting the 73 existing MECS warehouses. A network for the testing textbooks and training teachers was established by setting up and strengthening 15 regional staff development centres and 34 development high schools.

The provision of new textbooks improved the pupil/book ratio from 10:1 in 1975, to 2:1 as planned, in nearly 50 per cent of the primary and lower-secondary grade levels.

Mainly because of economies of scale, the project provided textbooks at costs of 50 to 70 per cent less than those of comparative commercial publishers.

Mainly because of economies of scale, the project provided books at costs of 50 to 70 per cent less than those of comparative commercial textbooks.

127

Reprinting/re- vision policy

Moreover, unlike previous crash programmes, the textbook project included a programme of textbook maintenance. It called for a reprinting of textbooks every three years and revision every six years in order to maintain a constant level of textbook supply in the public schools and keep the textbooks up-to-date and responsive to changes in the official curriculum and educational development.

The new textbooks

Physically, the new textbooks are distinguished by their appearance - rarely matched in textbook publishing in the Philippines. The typical textbook is printed in one or two colours on high quality high-brightness stock approaching the quality of book paper. Pages are uncluttered, avoiding the 'heavy' look that can 'put off' the teacher and the child. Type-faces and illustrations are chosen and used, taking care to correspond to the pupil's needs, interests and ability.

Initially produced in the large 8½ x 10 inch format (216mm x 266.7mm), the textbook was later reduced to the medium 7 x 10 inch format (177.8mm x 254mm), which has proved to be more economical in terms of printing and paper costs and more convenient for the pupils, without sacrificing the requirement of sound design.

The number of pages is determined by the amount of material needed for 150 school days. Too few would defeat the purpose of the textbook, too many would be unduly expensive. The elementary school textbooks are planned and written as a series from grade I to VI, following the official curriculum, while the secondary school textbooks are more subject-oriented.

Writing the new textbooks requires many authors working as a team. A typical author team in UPSEC, MECS-SSC and PNC-LSC is mostly made up of subject specialists with classroom teaching experience. They work closely with consultants in curriculum, educational psychology, communication and subject matter.

Writing teams

Each textbook is accompanied by a teachers' guide or edition that instructs the teacher on the best use of the new textbook, gives additional materials for enriching the lessons and adds to his or her knowledge of the subject. Consequently, teachers' manuals are produced by the textbook authors themselves, with careful editing by

... teachers' manuals are produced by the textbook authors themselves, ... and are frequently thicker than the textbooks they supplement.

TBS editors, and are frequently thicker than the textbooks they supplement.

129

Programme evaluation

Comparative studies of children's learning gains conducted by the TBS Evaluation Unit showed that: (a) children who used books achieved more than those who did not; (b) children who used project textbooks achieved more than those who used other textbooks; (c) the rate of achievement was faster and the gains were greater among children in rural areas than among children in central-school and urban areas; and (d) children who used project textbooks consistently over time achieved more than those who did not.

An interesting but inconclusive study on the effect of pupil/textbook distribution showed that a 2:1 ratio was better for grade I pupils than a 1:1 ratio. For grade II pupils, however, the 1:1 ratio was found more conducive to learning. TBS researchers speculate that when two pupils share a textbook they help each other and the teacher is required to provide continued closer assistance. Having a book to oneself

~~Having a book to oneself proves of less help to the child who has yet to 'learn how to learn'.~~

proves of less help to the child who has yet to 'learn how to learn'.

An independent economist, employed by UNESCO in 1979, estimated the unit cost of

project textbooks, on the basis of actual costs during the first three years of the project, to be 4.17 Philippine pesos*, or US\$0.55. This amount included the cost of building some of the facilities of the writing centres; the training and hiring of authors; administration; printing and paper; distribution and other activities necessary to develop, publish and deliver the textbooks to the pupils. The unit cost was broken down as follows:

Development (aid to writing centres for researching/writing/testing textbook manuscripts)	0.21 peso
Administration	0.06 peso
Printing and paper	2.61 pesos
Distribution	1.26 pesos

The cost of teacher training in the effective use of the textbooks and evaluation of their impact on pupil's achievement, estimated at 1.22 pesos, was not considered part of the production cost.

... based on initial evaluation of the effects of the project textbooks, student performance appears to have been raised by 14 per cent.

* Approximately 18.5 Philippine pesos = one United States dollar

Evaluating
textbook cost
and increased
student
performance

The study also noted that the submission of the textbooks to international competitive bidding for printing had the effect of putting pressure on printers, especially local ones, to lower their prices. Finally, the study estimated that the cost of textbooks has increased pupil cost by less than 1 per cent. On the other hand, based on initial evaluation of the effects of the project textbooks, student performance appears to have been raised by 14 per cent.

Problems and constraints

Although all targets were substantially achieved, some even exceeded, the project contended with a number of problems and constraints that at various times threatened it with derailment, if not failure. Some of the difficulties encountered were as follows:

Expertise. For the scale and standards set for the project, the special skills of editors, authors, book designers and illustrators, proved to be in short supply. The project has had to depend on the help of transient foreign experts, young professionals with little experience, and even education specialists recalled from retirement.

Manufacturing technology. Typesetters and printers had to retool to meet the unprecedented requirements of the project on a competitive basis.

Distribution. Distribution has to contend with the lack of an efficient transportation system and the naturally difficult geography of the country, which frustrates efficient delivery of books to schools.

Language. The textbooks are printed in English and Pilipino (both second languages in most parts of the country), impairing the effectiveness of the new textbooks.

Curriculum changes. Changes and new objectives in the official curriculum and educational policies, tend to threaten every new textbook with early obsolescence.

Complexity. In the operation of a project of this magnitude and complexity, with many virtually independent activities in book development, procurement, staff training and evaluation simultaneously being prosecuted, phased implementation has proved difficult to maintain.

Traditional private textbook publishers view the textbook project with hostility...

Private sector. Traditional private textbook publishers view the textbook project with hostility as undue encroachment

by the government into an area that is best left wholly to private industry.

Institutionalization. The objective of institutionalization has proved most elusive. At the end of 1980, the legal structure was yet to be developed that would ensure the government textbook programme continuing resources, flexibility of operation, and provide staff security and career opportunities.

The second phase

The successful implementation of the textbook project paved the way for the launching of a larger second phase. In 1981 the World Bank readily made available another loan double the size of the first one, for the textbook project within MECS' elementary education sector programme. This programme is designed to strengthen policies, management and instructional programmes with priority being given to regions with poor student participation and achievement. Direct improvement in student performance will be achieved through the introduction of a revised curriculum and improved methods and materials.

The World Bank loan amounting to US\$100 million, half of which is allocated to the development, production and distribution of textbooks and other instructional materials, has supported the government's programme from 1982 to 1985.

One feature of this programme, which is expected to have a far-reaching effect in the government education reform efforts, is the institutionalization of the textbook project into an Instructional Materials Corporation (IMC) made operational in June 1985. The corporation will serve as the implementing agency of the MECS in the development and provision or procurement of effective textbooks and related teacher and supplementary materials for public elementary and secondary schools. An Instructional Materials Council, which will be responsible for approving instructional materials for use in both public and private elementary schools and for supporting the development of educational publishing in the private sector has also been established, replacing the Textbook Board.

The IMC, capitalized at 200 million pesos from national funds, will launch an instructional materials development programme for the decade, focused on textbooks, supplementary and reference books, teaching devices and audio-visual equipment to upgrade teaching capabilities through tri-media communications. The corporation will also continue implementation of the textbook and other instructional materials component of the World Bank loan for the elementary education sector programme until its completion in 1986.

Hopefully the IMC will eventually reduce dependence on foreign loans and establish

135

IMC support
for new
curriculum

the resources and capabilities to upgrade local publishing and printing, help the private sector participate in government programmes and improve the industry's professionalism.

The IMC is the long awaited response of MECS to the need to surround the Philippine schoolchild with sufficient and appropriate learning technology and equip the teacher with effective teaching devices. It will directly support a new elementary curriculum which will emphasize basic skills in literacy, numeracy, civics and culture. The revised curriculum has been introduced grade by grade since 1983.

A ten-year publishing programme will be undertaken by the corporation.

Approximately 120 million basic textbooks will be supplied to the elementary sector between 1981 and 1990. This number is based on 50 per cent increased projected enrolments by grade, an annual replacement at 15 per cent of copies in circulation, and the introduction of a revised or new edition in the basic series every four years. In addition, approximately 6.5 million teachers' editions, special series and supplementary materials will be provided to complement the basic textbooks in each subject and meet particular regional needs.

Language
package 136

A typical package of instructional materials designed for language teaching at

each grade level, for example, will consist of pre-primer materials, primers, readers, workbooks, taped dialogues and teachers' materials. The pre-primer will provide listening, speaking and reading readiness by use of appropriate colour pictures, tape cassettes of sounds and situational dialogues, and workbooks. The textbook for the primer will contain simple reading lessons which will include alphabets, words, phrases and sentences about family life and relevant activities in school and community, designed to develop the pupil's ability to associate the printed word with the spoken form. The reader textbook will contain short selections that will promote desirable values, nationhood and a sense of the Filipino through the development of the three major skills in decoding, comprehension and study. Workbooks for writing readiness will prepare the pupil to write in vertical printing through exercises in drawing shapes, such as lines and circles, related to letter formation, and copying letters, words and sentences. The teachers' materials will consist of guides to accompany the pre-primer and teachers' editions for the effective use of the primer and reader.

The plans also call for the development and provision of a rich array of special materials and technology designed to provide supplementary and reference material to both teachers and pupils and meet special problems in teaching situations. These materials include teaching aids and equipment

Supplementary
materials

137

such as: (a) flash cards, flipcharts, maps, posters and games; (b) slides or filmstrips; (c) resource books and professional periodicals for teachers; (d) self-learning kits; (e) glossaries and dictionaries; (f) three-dimensional materials; and (g) special materials for slow and fast learners and for Pilipino and non-Pilipino-speaking pupils.

A student encyclopaedia that will provide students and teachers with a handy source of general information about the Philippines, its people and culture, will be developed up to prototype stage. Copiously illustrated, and written in a language appropriate for both elementary and high school pupils, the encyclopaedia will fill a long-felt need in the field for an authoritative but simple source book about the Philippines, its people and society.

Developing the private sector

A broad range of authorship and editorial expertise would be needed for the development and manufacture of these teaching/learning materials. While the

DMs plans include programmes of assistance and incentives, such as training grants, promotions, long-term financing and long-range planning for the private sector, ...

curriculum development centres under the first-phase textbook project would continue to provide research-based materials, private sector publishing and manufacturing would

be encouraged and more fully utilized. For this purpose, the IMCs plans include programmes of assistance and incentives, such as training grants, promotions, long-term financing and long-range planning for the private sector, in addition to a systematic programme of procurement based on an indigenous instructional materials industry.

As planned, IMC will fulfil the institutional objectives of the first-phase textbook project; consolidate all the gains therefrom; address the need for re-activating private sector publishing; provide permanent and long-term financing for the development and provision of textbooks on a continuing basis; and make available to every Filipino schoolchild and schoolteacher the great variety of audio-visual aids and reading materials needed to enhance classroom instructions and pupils' achievement.

Chapter Twelve

PRICING POLICY OF JEMC

by Sarad Chandra Poudyal, Deputy General Manager, JEMC,
Bhaktapur, Nepal

The Janak Education Materials Centre was established by His Majesty's Government to undertake the responsibility for textbook production as guided by the National Education System Plan (NESP). To be in line with government policy, the centre charges only a nominal price for textbooks (textbooks for Classes I, II and III are distributed free), and the price of 4.31 paisa* per page was fixed in 1978 and has since been maintained. Not surprisingly the price of almost all inputs have increased since 1978 and despite the most rigorous efforts it has been virtually impossible to maintain the fixed price. It is the aim of this study to determine a suitable price for the textbooks produced by JEMC.

* Approximately 17 Nepalese rupees = 1 United States dollar. There are 100 paisa in 1 Rupee

Methodology. The basic methodology adopted for pricing is; cost incurred plus 5 per cent. The cost incurred in five fiscal years from 1978-1979 were extracted from the audited balance sheet. From these actual figures, the trend in the rise of costs is determined by using the retrogression technique. These figures are projected to the fiscal year 1989-1990. While making projections, the cost of paper; salaries and wages; and depreciation are treated separately because their trends follow different patterns. Such projected costs are averaged out and the mean is used to arrive at the cost of production. While determining the projected cost of production, new components of cost, which were not included in the previous five fiscal years (such as revised remuneration of the textbook writers and evaluators, loss from obsolete books) are estimated and incorporated in the project cost.

The demand for textbooks until the fiscal year 1989-1990 is projected using the annual growth rate of 4.4 per cent. This growth was determined from previous studies. In the same way as costs, the demand for five years is also averaged.

Based on the projected demand and average cost of production, the unit cost of production is calculated. To this unit cost, a marginal profit of 5 per cent of the investment, as of fiscal year 1982-1983, and sales commission of 20 per cent of cost plus

Calculating
unit cost

141

profit, have been added to arrive at the selling price of the books.

... printing is the only process in book production where there is no alternative. Other processes such as composing, folding or stitching can be done both manually and mechanically.

Capacity determination of the plant. As the operating capacity of a plant has a direct influence on the cost of production of any product, it is necessary to assess both the maximum and normal (attainable) capacity. The capacity of the individual printing units is considered when determining the capacity of the entire plant. This assumption is based on the fact that printing is the only process in book production where there is no alternative. Other processes such as composing, folding or stitching can be done both manually and mechanically. Maximum and normal capacities are based on the normal working day of eight hours in the three-month winter season and ten hours for the rest of the year.

The printing units under consideration are the three largest presses in the plant. They operate only one shift, with the provision for overtime of up to five hours daily depending on the need. Records were kept for the fiscal year 1983-1984 from which a comparison was made between (a) the 'rated capacities' of the machines, (b) the

practically attainable speeds (approximately 75 per cent of rated capacity) and (c) the number of printed impressions actually achieved. It was found that the actual impressions were less than half of what might practically have been achieved.

Part of the reason for this were the relatively long periods of idleness of the machines due to mechanical failure, ranging from 87 days in the year for one machine to 10 for another. Inexperienced maintenance crews and the slow delivery of spare parts contributed to the length of time the machines were not in service. Had the idle time been shortened by one third by maintaining an adequate inventory of spare parts and conducting speedy maintenance the three machines could have printed more than 12 million additional impressions, or 17.8 per cent of actual production.

Machine
maintenance

Had the idle time been shortened by one third ... the three machines could have printed more than 12 million additional impressions...

Operating two shifts. At present the machines are operated on only one shift of a normal working day plus about three hours overtime. By employing a second shift without any overtime, the capacity of the plant will exceed the demand. The surplus capacity could be used to print outside jobs which would generate more income for the

143

centre. The extra cost of approximately Rs. 63,000 would easily be recouped.

Costing. JEMC classifies costs as 'variable' and 'fixed'. Sixty-eight per cent of variable costs in 1982-1983 went on purchasing paper, with the salaries and wages of production staff comprising another 19 per cent. Other variable costs were: ink and chemicals (4 per cent); transport (5 per cent); repairs (3 per cent); electricity (2 per cent); and miscellaneous (1 per cent).

Fixed costs were as follows: salaries of administrative staff (31 per cent); fuel (31 per cent); depreciation (29 per cent); followed by fees; travel; insurance; rent; maintenance; bank commission; electricity and other incidental expenses.

It can be seen that salaries and paper are the two major components of JEMC costs. The cost per page of the printed books is estimated to be 3.27 paisa.

Profitability. The gross profit earned for the year 1982-1983 was Rs. 984,755, giving a return on investment of 1.15 per cent which is very low. This is especially so when the government expects the return from public enterprises to be from 7 to 9 per cent. The reason for this is high working capital. The nature of the product of JEMC is such that the production of the entire year is consumed in only three months, whereas in other industries like dairy

farming or cement manufacturing there is a constant outflow of finished products. Apart from that, the distributor takes

... the credit facility, coupled with the high inventory of books entails a huge working capital.

delivery of books on credit, which is realised only after the books are sold. It takes at least one year to realise money from the distributor and the Ministry of Education which pays for the books for free distribution. Therefore the credit facility, coupled with the high inventory of books entails a huge working capital.

Other cost considerations. To determine a reasonable selling price which should remain stable for at least the next five years one must also take account of revised remunerations for textbook writers and evaluators; money lost on books made redundant through syllabus changes; the effects of salary revisions and the rising cost of paper.

Manuscripts are submitted by invitation and the best selected by an evaluation committee. Although there is a sliding scale of payment, depending on the quality of the manuscript selected, JEMC, working on the assumption that the manuscripts selected through competition must be the best quality, prepares its costing estimates based on the maximum payment. The average

145

annual expenditure for 101 titles over a five-year period amounts to Rs. 1,131,200.

In order that textbooks should always be available, JEMC always prints and distributes more copies than the actual statistical requirement. Once a text is replaced it becomes valueless. Many books are damaged during storage by rodents or insects. It is estimated that an average of 50,000 books of various titles become unusable every year. This constitutes a loss of Rs. 206,000 per year.

Many books are damaged during storage by rodents or insects.

Salaries and allowances increased by more than 200 per cent over the six years 1979 to 1984, with an average increase of approximately 27 per cent. This is partly caused by salary revisions, but also by large recruitment of staff. Manpower at JEMC has now reached the maximum level, but even assuming that the only increases in salary costs will be annual increments, the annual salary payments will exceed Rs. 10 million.

Allowing for fluctuations in the rate of exchange and an annual increase of 5 per cent, the average annual cost of paper is estimated to be almost Rs. 22 million.

Income from waste. In printing wastage comes from paper trimming, sheets damaged during printing and sheets torn when being fed into the printing presses. Income from

~~Income from the sale of scrap paper is deducted from the operating costs.~~

the sale of scrap paper is deducted from the operating costs.

Final cost. After preparing cost estimates based on the above considerations and deducting savings from sale of waste paper and removing overtime, the annual estimated operating cost is almost Rs. 44 million. After calculating the estimated demand for textbooks, the production cost per page will increase to 3.77 paisa. Added to this is the government return on investment of 5 per cent (0.41 paisa per page), and sales commission to the distributor at 20 per cent of the selling price (1.02 paisa per page), making a total selling price of 5.20 paisa per page.

Although this new price is 21 per cent higher than the existing price it is still considerably lower than the 8 to 15 paisa per page charged by other publishers.

Chapter Thirteen

SUPPORT MATERIALS DEVELOPMENT AT ISMED

by Porfirio P. Jesuitas, Publication Co-ordinator,
Institute Science Math Education Development, University
of the Philippines, Quezon City

The University of the Philippines Institute for Science and Mathematics Education Development (ISMED) has been engaged in the development of curriculum materials for the elementary, secondary and teacher education levels for more than 20 years. There are two major types of materials - print and non-print. Among the print forms are the textbooks, teachers' guides, laboratory manuals, self-learning modules and resource books. The non-print materials include prototypes of laboratory kits and other teaching equipment, video tape-recorded lessons, slide-tape presentations, educational games, toys and the like.

Resource books. Aside from textbooks, which contain the core curriculum, ISMED also produces resource books for teachers and educators of teachers as well as for students who are in need of reference

materials. Most of these contain definitive information regarding a specific subject matter (e.g. Philippine birds and mammals) while some provide ideas regarding the teaching and learning of science and mathematics. The development process for these books varies from that followed in textbook writing.

The resource books are written by experts and specialists from among ISMEDs senior staff or from the university faculty and pool of scientists. These are usually individual efforts or collaborative ones between two authors at most. As such, their content undergoes the minimum of revision, but support staff is provided by ISMED, especially in preparing the work for publication. These are printed for ISMED at the UP Press, or by private printers. The commercial publishers, who usually also have bookstore outlets, take charge of marketing the resource books, although ISMED also carries these in its business office. ISMED and the individual authors derive royalties from the sale of these books.

Royalty
payments

Modules. Development of self-learning modules started in the latter half of the 1970s. These were mainly offshoots of community-based research projects and as such were targetted towards the adults of a particular rural community, its youth (both in-school and out-of-school) or specific sectors (e.g. farmers or housewives). Regular ISMED staff involved in the project,

149

under the supervision of senior members of the workgroup, draft the manuscripts for such modules. Then an outside consultant, whose field of expertise covers the subject of the module, goes over the manuscript. A review board composed of ISMED subject specialists and the director, gives final approval before the manuscript goes to ISMEDs publications section. In a few cases, outside experts are asked to write manuscripts for the modules.

... ISMED distributes a publication list and publishes new titles in its Newsletter and other appropriate publications.

Publications promotion

No aggressive marketing or distribution strategy is employed to sell the modules. ISMED simply distributes a publication list and publishes new titles in its Newsletter and other appropriate publications. The targeted readers, which include the teachers, usually come to know about the existence of these materials through the network of regional science teaching centres (RSTCs) in key areas all over the country which are in constant touch with ISMED, or through the teachers enrolled in the graduate programmes in UP, or who attend short courses at ISMED. A mail-order mechanism has been used for some time now and is used mainly by RSTCs and other institutions which regularly get copies of ISMEDs publications list. Recently a display shelf was put up to place on view the

An exception to the normal distribution process was the publication and distribution of a series of health modules in Pilipino by a drug manufacturing firm.

available ISMED publications, not only the modules, to teachers, educators, or schoolchildren who visit ISMED.

An exception to the normal distribution process was the publication and distribution of a series of health modules in Pilipino by a drug manufacturing firm.

Science readers. These illustrated storybooks for children, which centre on a particular science concept or phenomenon, were developed in much the same manner as the modules. A team of writers produced a manuscript, the subject of which was based on a survey, and this manuscript was reviewed by several people in terms of language, accuracy of content, appropriateness of vocabulary and such other important considerations. Upon approval by the ISMED review board, the Science Readers came out in experimental editions. Commercial publishers were later invited to bid for the printing and distribution rights. The first set of five readers has been bought and published.

The non-print materials. A corollary of curriculum development is equipment and teaching aids development. In this regard

151

ISMED concentrated on prototype development and fabrication, since it does not have the facilities for mass production. The VTR and slide-tape lessons it produces are mainly used for teacher training and instruction in educational technology. The same applies to the computer software which is included in the workplans of the various subject area workgroups in collaboration with a Computer Workgroup.

Chapter Fourteen

PUBLISHING FOR MINORITY GROUPS

by Sefulu Ioane, Director, Pacific Islanders Educational Resource Centre, Auckland, New Zealand

The steady rate of growth of New Zealand's multi-cultural community since the 1960s has, as a by-product, generated its own educational needs. Since the end of the Second World War, an increasing number of immigrants from the South Pacific area (mainly Cook Islands, Fiji, Niue, Tokelau, Tonga and Western Samoa) came to New Zealand in search of job opportunities and a better chance of educating their children. They now number well over 88,000 (1981 Census) or 3 per cent of the total population. More than 64 per cent live in the Auckland area, with the remainder in urban centres such as Wellington, Tokoroa and Christchurch.

In addition to the Pacific Islanders, newer immigrants from the Southeast Asian region, especially China, Kampuchea, Lao and Viet Nam have also settled in New Zealand. Although their numbers are small, yet together with Pacific Island immigrants,

153

they form a significant group of citizens with a non-English speaking background. Moreover, there are now in the Auckland area, primary and secondary schools where the majority of pupils come from these backgrounds.

The Pacific Islanders Educational Resource Centre (PIERC)

PIERC was established as a community centre. It is one of the Department of Education's innovative projects designed to assist Pacific Islanders and, indeed, other non-English speaking immigrants with their adjustment to life in New Zealand, through its educational programmes.

Originally, PIERC, in the first three years since its establishment in 1976 in Auckland, concentrated mainly on the production of educational books and materials aimed at the teaching of English to Pacific Islanders at the basic level. The main thrust at the time was to serve the needs of adults in industry and at home; the latter being catered for through the Home Tutoring Programme, which PIERC developed and introduced into the education system for the first time.

The next task was the production of suitable language materials for use by both teachers and pupils from non-English speaking backgrounds at the primary level of education. This was not an easy task in the early years for the following reasons:

- a) there was little available research material on the teaching of English to non-English speakers in New Zealand;
- b) the large numbers of ESL-type* pupils from diverse cultural entering primary schools placed classroom management and teaching strategies under considerable strain;
- c) fewer classroom teachers with an appropriate training in both ESL teaching and cross-cultural studies were available to utilize educational resources aimed at this level;
- d) PIERC could not produce the appropriate educational materials fast enough to meet rising demands; and
- e) the handling of bilingual materials needed well trained teachers.

However, as time passed and more experience was gained, and having established a network of effective communication with schools in the region, the situation improved.

The Publications Department. This is an integral part of the Centre's Educational Resources Division which also includes translation and consultancy services; audio-visual productions and video cassette productions.

* ESL = English as a Second Language

The Department consists of:

- a) the Chief Editor/Manager who is finally responsible for decisions made at all points, from the beginning to the end of a particular publication;
- b) the Professional Staff with editorial responsibilities for language levels and content material;
- c) the Linguistic Adviser;
- d) two Technical Staff comprising a graphic artist and visualiser and a Fine Arts graduate responsible for visual arts and photography;
- e) the Executive Officer who obtains printing quotations from commercial printers, prepares cost estimates for approval and draws up priority lists for new publications or reprints;
- f) a multilingual typist; and
- g) a clerical assistant who assists with sales enquiries and distribution.

Shared
responsibilities

Apart from the officers in the technical division, all other staff from the Publications Department carry responsibilities elsewhere in the PIERC network, in addition to those already delineated.

Funding. The Publications Department is a self-supporting unit. Staff salaries and equipment, including the darkroom, are funded by the Department of Education through the normal annual grant for PIERC;

... all publication costs are financed through the sale of books and other educational materials produced by the unit.

but all publication costs are financed through the sale of books and other educational materials produced by the unit. This means that in planning a future publication, the question of the marketability of the product ranks quite high on the list of criteria to be considered, as it is important for a self-funding unit to maintain a reasonable level of cash flow in order to be able to maintain publication activities at an acceptable pace during the year. As a self-funding operation, the unit is organized on a fairly tight budget, and hence its strategies tend to incorporate commercial aspects of sale and marketing.

Control and management. The immediate control of all earnings and expenditure of the Publications Department of PIERC is with its Management, acting through the Auckland Education Board, which is the local controlling authority. The servicing and auditing of accounts are also done by the latter. The daily management of the unit, as well as its professional undertakings, are the responsibility of the Director.

Primary level publications. There are three main categories:

- a) English language development materials for children from ESL backgrounds;

157

- b) bilingual books (English and Pacific languages) and monolingual readers in Pacific languages only; and
- c) resource units and handbooks for teachers.

The preparation of all these often involves classroom teachers in the trial of materials. Parents, and sometimes children, are also invited to give their comments.

Parents, and sometimes children, are also invited to give their comments.

Existing Department of Education materials such as School Journals are modified at PIERC to help the second language learner read with the rest of the class. These modified publications are accompanied by picture sheets, writing booklets and activity books.

Quality control and evaluation

Quality sells books. It is the practice of PIERC to check for quality at various points along the line of production. This is often achieved through establishing less informal opportunities for professional and technical

Quality sells books.

staff (and sometimes teachers and other contributors) during crucial stages of a production.

Most of the materials are sent to classrooms throughout the country to be tested by interested teachers. These teachers send the material back with comments reflecting their reactions to the content and language level, as well as the children's attitude. This feed-back is valuable in evaluating publications.

Gathering
children's
attitudes

Teacher preparation

Regular visits by PIERC staff to schools using PIERC materials provide good opportunities for giving classroom assistance with these specialized resources. Throughout the year there are ample opportunities to brief teachers when they attend specially set up refresher courses on language teaching, day courses at PIERC or at small meetings of interested language teachers organized by themselves.

Pricing

The main concern for PIERC, as a regional enterprise dealing with specialized educational books and other teaching materials, is to ensure that the cost to the consumer, or target community, is as cheap as possible, while at the same time maintaining high standards. Another consideration is to use sales to generate a

159

little profit to be used for further publishing activities. Accordingly , a list of priority titles for publications, together with the total costing for each, plus expected income, tend to form the basis for an overall strategy.

Distribution

As resources are usually for sale, distribution is done through direct sales to schools and other educational institutions. A substantial portion of the resources are sold

As resources are usually for sale, distribution is done through direct sales to schools and other educational institutions.

to commercial outlets, as well as institutions of learning overseas, mainly in the South Pacific, United States of America and Australia.

The bilingual dilemma

Bilingual and specialized language resources are essentially prepared for use by minority groups. This often means that runs are usually small and markets limited in terms of their ability to absorb and sell the finished product. This is one of the main reasons why commercial enterprises have not exploited this area of publication in New Zealand.

The other areas of concern are in the collection, translation and adjustment of the materials emanating from other cultures to suit the mainstream of readers. Finally there are also practical difficulties involved in the recruitment and training of contributors from ethnic communities, mainly because of financial constraints.

Chapter Fifteen

GATHERING FEEDBACK FOR TRY-OUT MATERIALS

All the countries that have participated in the various textbook/learning materials seminars carry out some kind of evaluation of the materials they produce. Some gather the evaluation not only from the teachers, but also from the pupils and their parents, particularly in the case of 'take home' readers.

Page 28, Textbooks and Reading Materials, Volume Two: Outcomes of the Regional Seminar (New Zealand, October 1983) sums up the process:

Detailed feedback is usually requested: this may be in the form of a questionnaire for teachers to complete.

Observers in the classroom may provide feedback; parents opinions may be sought ...

The information is gathered and collated and considered by the writers and other experts responsible for developing the materials. The material is

revised and, if necessary,
rewritten.

The following pages show the try-out instruments used by the Philippine Textbook Project, and described earlier in Chapter Four, 'Trial Editions'. While the field testing results provide valuable data, Nellie Apolonio, the Testing Chief, maintains that if an ongoing expert review of the materials is maintained during the development stage, most of the inadequacies can be spotted before the field testing.

To conduct field testing of the sort illustrated here, teachers must be fully trained and well briefed beforehand. The responsibility of participating in a trial programme is often compounded by the, often unavoidable, delays in getting the trial materials into schools on time. This adds further pressure on the teachers which, 'they may not be able to handle'.

June 1985

Dear Tryout Teachers and Subject Specialists,

We are field testing Grade IV textbooks and other related materials for the New Elementary School Curriculum produced under the National Textbook Project of the MECS in selected schools throughout the country this schoolyear to ensure that these materials are useable and acceptable.

You can make an important contribution to this tryout program. We are providing you copies of the trial edition of the materials and requesting you to give us your comments and suggestions for improving these materials.

To make it easier for you to communicate feedback to us, we are asking you to write marginal notes on the send-back pages of the materials following the guidelines outlined in this primer. Please write your reactions by indicating other details if necessary. Please send the marginal notes to the Textbook Board Secretariat by sets of lessons as indicated in the attached tables.

The marginal notes you will send will make up the core of the feedback that shall be considered by the writers and the editors in the revision of these materials.

Your handling of the tryout classes or visits to these classes provide you the opportunity to gather and verify data for the marginal notes as you teach or observe the tryout classes.

We are counting on your co-operation.

Thank you very much.

The Textbook Testing Section
Editorial Division
Textbook Board Secretariat
Ministry of Education, Culture and Sports
Area XI, University of the Philippines Campus
P.O. Box 211, Diliman, Quezon City 3084

and

The Curriculum Division
Bureau of Elementary Education
Ministry of Education, Culture and Sports

WHAT DATA CAN YOU GIVE US THROUGH MARGINAL NOTES?

There are three aspects of the tryout materials that you can help us evaluate. These are:

1. Content (*Nilalaman*)
2. Approach (*Pamamaraan*)
3. Physical Make-up (*Buong Kaayusan at mga Larawan*)

You can communicate to us your comments or reactions through marginal notes on the send-back pages of the trial edition provided for the purposes.

HOW CAN YOU MAKE MARGINAL NOTES?

You can make marginal notes in any of the following ways:

1. Encircle the part that needs improvement and write the corresponding suggestions nearest the part referred to. The aspects of the text materials that have to be evaluated are explained in the pages that follow.
2. Use the symbols for communicating comments as explained on the pages that follow. A summary of the symbols and abbreviations used in making marginal notes is provided on pages 27-28.

**ASPECTS OF THE TRYOUT MATERIALS THAT HAVE TO
BE EVALUATED and the SUGGESTED SYMBOLS
FOR COMMUNICATING COMMENTS**

1. Content (*Nilalaman*)

- a) Coverage of NESC Curriculum Requirements
(Compliance with NESC thrusts and directives)

Are the learning skills in the Minimum Learning Competencies (MLCs) for Grade 4 covered adequately in the lessons?

Do the lessons help to develop among the pupils the sense of humanism, nationhood and national identity? In which lessons can these values be infused more adequately?

On the last page of each set of feedback pages, please write the following:

1. the expected competencies which are not covered in that portion of the instructional materials; and
2. the parts of the materials wherein the sense of humanism, nationhood, and national identity can be infused more adequately.

b) Substantive, Accurate, and Up-to-Date Content

Are the facts or information presented in the text materials substantive enough to enable the pupils to understand and appreciate the subject matter?

Are the facts accurate and up-to-date? Do the text materials provide correct and updated information?

If the body of facts or information is not substantive, enclose that part in a bracket and write your suggestions on the margin.

If a piece of information is inaccurate or wrong, draw a horizontal line across it and write your suggestions.

Examples:

Ang mga Malay ay mga ninuno rin natin na dumating dito sakay ng mga bangkang kung tawagin ay balangay. Katamtaman ang kanilang taas at kulay, tuwid ang kanilang buhok.

Sabihin kung saan nanggaling ang mga Malay. Idagdag pa rin na dugang malayang nananalaytay sa dugang Pilipino.

Visayas

Ang balangay ito ay sakop ng Luzon.

• **Sufficiency of Materials**

Are there enough materials in each activity or lesson in the Teacher's Manual or Teacher's Guide to achieve specific objectives and ensure mastery of skills?

If the material in a lesson is not sufficient, write "Insuf. Mat." at the end of the activity or lesson. Also, give your suggestions as to what material may be added.

If the material in a lesson is more than enough, write "Too Much Mat." at the end of the activity or lesson.

Examples:

Naganap ang unang paglalaban ng Kastila at Pilipino sa Pulo ng Mactan. Finamunuan ni Lapulapu ang pangkat ng Mga Pilipino.

Insuf. Mat. Idagdag: si Lapu-lapu ang kauna-unahang bayani ng Pilipinas. Pihatay niya si Magellan na isang datukhan

Fifth Day

Listening to a Story

Objectives: Answer specific questions on important details

Insuf. Mat. Provide an activity for vocabulary development.

Pag-iisa ng Dalawang Pangungusap

Pag-aralan ang mga pangungusap. Pansinin na ang unang dalawang pangungusap ay pinag-iisa sa pangatlong pangungusap.

Insuf. Mat. Kulang ang mga pagsasabang. Magdagdag pa ng mga gabain.

• **Appropriateness of Content to Attainment of Objectives**

Do the different activities or parts of a lesson make way to the attainment of the objectives? Do they contribute significantly to the attainment of the objectives?

Is each objective provided with the corresponding lesson or activity that will allow the accomplishment of the objectives?

If there are activities or parts of a lesson which do not make way to the attainment of the objectives, draw two diagonal lines across them. Write your suggestions near that part.

If there is an objective without the corresponding lesson or activity, encircle the objective and write your comments beside it.

Examples:

The pupil should be able to:

1. use before and after in relation to the months of the year; and
2. give other short form answers using does/doesn't

Have the pupils compare their responses and make the corrections in their work. ~~Put~~ on rows and individual pupils to read the completed sentences. Examples: School begins in _____. We are on vacation in _____ and _____. Flores de Mayo comes in _____.

This exercise does not provide for the attainment of the objectives.

Layunin

- ① Nasasabi ang diwang nakapaloob sa larawan
- ② Nakasasagot sa mga tanong na ano, sino, bakit, paano at saan

Walang paalinang naaralin tungkol sa pagamit ng ano, sino, bakit, paano, at saan.

c) Suitability of Material for Target Pupils

Are the dialogues, selections, exercises or other activities appropriate to the age and experience level of the pupils?

Do the dialogues, selections, exercises or other activities reflect real-life situations? Can the materials be meaningfully related to the pupil's life?

If any part of the lesson is not appropriate to the age and experience level of the pupils or cannot be related to the pupil's life, enclose that part in a bracket and write your suggestions on the margin.

Examples:

-
1. Have you ever seen a shooting star?
 2. Last night my brother and I were looking out of the window...

*Can we not change the story
with a material that talks about
children's experiences?*

I'd rather eat cicadas, they're
crunchy, nice and crisp.

I'd rather munch one day old
chicks, or chew some gummy
sticks.

But there it was I couldn't
do a thing!

I swallow one whole fly!

Ugh!

*Can we not change
the poem with
a material that
talks about pleasant
or interesting
experiences of children?*

d) Quality of Writing

* Language Level Appropriateness

Are the statements of the objectives (*layunin*), subject matter (*paksa*), materials (*kagamitan*), and procedure (*pamamaraan*) understandable to the teachers?

Are there words, phrases or sentences derived from the text materials which the pupils find difficult to understand?

Are the dialogues, selections, practice exercises or other activities intended for the learners within their reading ability?

If the statement of the objective, subject matter, materials, or sentences which are difficult to understand, encircle them. For the dialogues, selections or exercises, encircle the titles only. Write the probable cause of the difficulty and your suggestions on the margin.

Examples:

Mabubuhay sila sa pamamagitan ng pambibitag ng mga hayop. *Hindi ito pamilyar sa mga bata.*

Their bicycles wiggled like snakes and fell.

Difficult word

Things We Hear

Open one end of each can. Make a small hole in the center of the can. Put one end of the string through the hole of each can. Put the other end of the string through the hole of the other can.

Tie a matchstick to each end of the string. Pull the string tight. Ask a friend to stand in one end of the room. Pull the string tight.

For beginning readers, the write-up is not within their reading level.

• Interesting, Varied and Creative Activities

Are the activities interesting? Are these activities able to call the learner's attention and to encourage them to want to learn more?

Is there variety among the activities?

Do the activities provide for the development of creativity among the learners?

If there are activities which can be made more interesting, please enclose these activities in parentheses and write your suggestions on the margin.

If you think that other related activities may be substituted or added to provide variety to the activities presented and to make way for the creativity of the learners, please encircle that portion of material and write your suggestions on the margin.

Examples:

(Say the following words. Tell the pupils to clap their hands when they hear the /th/ sound at the beginning of the word and twice when they hear the /th/ sound at the end of the word. *Repetitions. Can we not have more varied auditory discrimination activities?*)

Isulat sa pisara ang sumusunod na mga pangungusap na may puwang. Basahin sa klase at ipasulat sa papel ang sagot na mapi-pili sa mga plaskard na unang ginamit sa mga tugma.

Maari bang gumamit ng ibang pamamaraan para maging kagayak-gayak ang gawain sa mga bata?

Ipabasa ang nilalaman ng aralin sa batayang aklat. Pag-usapan ito. Magbigay ng mga tanong tulad ng sumusunod:

Isaawit ang awiting 'Ang Dalagang Pilipina' upang maging kagayak-gayak ang gawain sa mga bata.

2. Approach (*Istratehiya*)

Clarity and Effectivity of Instructions

The procedure in each lesson as indicated in the Teacher's Manual or Teacher's Guide includes specific approaches or strategies in carrying out the activities. Do you think these suggested approaches or strategies are effective? Are there approaches that need to be changed?

If the approach used in carrying out an activity is particularly *effective*, draw a happy face near the activity in the TM or TG.

If the approach is *ineffective*, draw a sad face near the activity and write your suggestion. Your suggestion is very important.

Examples:

Pag-aralan ang mapa. Tingnan ang kabuuang hugis ng Pilipinas. Iguhit ito at kulayan.

Maayadong mahinap ang gawding ito para sa mga bata.

Ipabasa ang nilalaman ng aralin sa batayang aklat. Pumili ng ilang bata upang gumanap bilang tanyag na Pilipinong binanggit sa aklat.

Maari na sigurong magreklamo ang mga bata tungkol sa dalawang pangulong ito at ipalatak ito sa klase.

• **Logical Organization**

Are the activities within a lesson and the lessons within a unit properly sequenced and organized?

Does the Introduction to the Teacher's Manual or Teacher's Guide explain clearly the use of the materials?

If there are activities within a lesson or lessons within a unit which may be sequenced or organized in a different way, please draw a sad face near the activity and write the suggested sequence or organization.

If there is a portion of the Introduction which needs simplification or other improvements, please draw a sad face near that portion and write your suggestions.

Examples:



*Difficult.
Use 1st and 3rd
level comprehension
questions to
precede these
questions.*

Comprehension checkup

How do trees help stop floods?

How can we help stop floods?



What things are on the table?

Does each of them take up space?

Does each of them have mass?

*Difficult questions. These may be
asked after doing the activities
in p. 37 when the word mass
has been introduced.*

Aralin 13-pagbibigay ng Pamagat *Pagsasanay*. Ipakuwento ang sinasabi sa bawat larawan tulad ng sumusunod. Pagkatapos, ipabigay ang iba't ibang pamagat na angkop sa kuwentong nabuo ng serye ng tatlong larawan.



*Natirapan ang mga bata. Wala
silang apat na kasamang gawa
gumawa ng pamagat. Dapat
pangunahin ang mga pagtutay
na maitatutay ng mga bukid
sanda ang mga bata sa gawad ng it.*

• **Provision for Evaluation**

Is there a suggested evaluative activity after each lesson?

Is the evaluative activity appropriate? Does it provide indicators of the degree of mastery of the learning competency involved?

If there is no suggested evaluative activity for a lesson or if the evaluative activity suggested is not appropriate, draw a sad face at the end of the lesson and indicate your suggestions.

Examples:

Pagsasanay. Ipagawa ang PAGSANAYAN sa p. 72.
Matapos nilang malagyan ng tamang sagot ang mga puwang,
tumawag ng dalawang mag-aaral na babae at ipabasa ang
pagsasanay sa madulang paraan.



*Maglagay ng
gawaing pagtataya.*

Have the pupils classify the things just mentioned under these two headings: Good for Us, Bad for Us. Call on a pupil to read an item and tell whether it is good for us or bad for us. Write responses in the appropriate column as a child gives an answer.



*Inappropriate
evaluative measure.*

3. Physical Make-up (*Buong Kaayusan*)

Are the pictures, graphs or maps appropriate to the text content and to the learner's comprehension level?

If an illustration needs improvement, place an "X" mark beside it and write your suggestions on the margin.

Ask the children to place a stone over each of the seven cells on the left and each of four cells in the right.

Figure 35



If an illustration needs to be replaced, put an "XX" mark beside it and write your suggestions on the margin.

Piliin ang mahaba sa lahat.

5. A. _____

B.

K.

IN THE CASE OF THE SET OF CHARTS FOR ART ARTS AND PE, YOU CAN WRITE YOUR COMMENTS OR SUGGESTIONS WHEREVER THERE IS REFERENCE TO THE PICTURES IN THE TEACHER'S GUIDE ON THE SEND-BACK PAGES OF TEACHER'S GUIDE.

WHEN WILL YOU MAKE MARGINAL NOTES?

We suggest that you make marginal notes as you read through or review the text materials in English, Science and Health, Math, Pilipino, Civics and Culture, Arts and PE, and Home Economics and Lifelihood Education.

In Grade 4, where you teach all the seven basic subjects, we suggest that you *read through the materials using the send-back pages for convenience ahead of time* and immediately note down on these send-back pages whatever remarks or suggestions you have.

Supervisors or subject specialists are likewise requested to *read through or review the assigned materials and write their reactions on the send-back pages ahead of time*. They may indicate other needed details when they have observed the tryout classes or verified certain information with the tryout teacher and pupils.

The best time to make marginal notes is any time that you find convenient. In any case, do not put off making your marginal notes. Some valuable feedback may be forgotten in the process.

**ON WHICH PARTS OF THE TRYOUT MATERIALS
TO WRITE MARGINAL NOTES
AND
HOW TO SEND MARGINAL NOTES**

A. To facilitate accomplishing marginal notes, we divided each text material into four parts: Parts 1, 2, 3, and 4. We are requesting tryout teachers to accomplish only two alternate parts for each of the materials.

Tryout teachers from Regions NOR, III, IV, V, VI, XI, also II, VIII, IX and XII are expected to provide feedback on Parts 1 and 3 of each of the tryout materials while the tryout teachers from Regions I, VII, and X are expected to provide marginal notes on Parts 2 and 4.

B. To facilitate the sending of feedback, the tryout teachers in the 10 regions listed above are requested to put together Part 1 of the English, Math, and Science materials and to send this as Set A of feedback; Part 1 of the Pilipino, Civics, Arts and PE, and Home Economics and Livelihood Education materials as Set B; Part 3 of the English, Math, and Science materials as Set C; and Part 3 of the Pilipino, Civics, Arts and PE, and Home Economics and Livelihood Education materials as Set D.

The tryout teachers of the three other regions mentioned above are expected to put together Part 2 of the English, Math, and Science materials and to send this as Set A of feedback; Part 2 of the Pilipino, Civics, Arts and PE, and Home Economics and Livelihood Education materials as Set B; Part 3 of the English, Math, Science materials as Set C; and Part 4 of the Pilipino, Civics, Arts and PE, and Home Economics and Livelihood Education materials as Set D.

Please refer to Table A for guidance.

The division supervisors are also requested to accomplish marginal notes on two alternate parts, Parts 2 and 4 of the material for their subject areas. In addition, they are requested to accomplish

an observation report for one complete session in each of the four parts of the materials.

In sending feedback, the supervisors are requested to send marginal notes on Part 2 of the materials and observation reports for Parts 1 and 2 altogether as Set A of their feedback; the marginal notes on Part 4 and the observation reports for Parts 3 and 4 as Set B.

Please refer to Table B for guidance.

C. Stamps and self-addressed envelopes are provided for send-back purposes. Please send the feedback as soon as you have completed a set.

D. We have also provided transmittal forms. Each time you send us a set of feedback, have your principal (for teachers) or your direct superior (for supervisors) sign two copies of this form. Attach one copy to your marginal notes and leave the other copy with your supervisor for the division office file.

HERE IS A SUMMARY OF THE SYMBOLS
AND ABBREVIATIONS TO BE USED IN
MAKING MARGINAL NOTES:



— Difficult



— Not substantive

ika-12 ng-Hulyo

— Inaccurate or wrong

*Insuf. mat., or
Too much mat.*

— Insufficient material;
Too much materials

1. use before and after in relation to the months of the year; and
2. give other short form answers using does and doesn't

— Appropriateness of content to attainment of objectives



— Effective Approach

Remarks: Challenging

180

16



— Ineffective Approach

Remarks: Please make this specific



— Sequencing or organization
needs improvement



— Poor illustration



— Inappropriate illustration;
needs replacement

GUIDELINES OF THE TRYOUT OF GRADE 3 INSTRUCTIONAL MATERIALS

I. Objectives of the Tryout

The tryout of the new Grade 3 curriculum involves the tryout of the new instructional materials in the following learning areas: Pilipino, English, Math, Science and Health, Civics and Culture, and Arts and PE. These materials have been prepared by the Textbook Board Secretariat (TBS) in co-ordination with the Bureau of Elementary Education (MECS-BEE) to meet the requirements specified in the New Elementary School Curriculum (NESC).

The main objective of the tryout of the instructional materials is to gather feedback data in the form of reactions, evaluative comments and suggestions from the tryout teachers, pupils and subject area supervisors who actually use these materials. The feedback data will be retrieved and processed, so that these data can be utilized in the revision of the text materials.

II. The Tryout Scheme

A. Participants and Respondents

Thirteen schools have been selected as tryout schools to represent each of the thirteen regions in the country. From these 13 schools, seven representative classes will be closely monitored by the TBS Testing Section for feedback gathering purposes. These seven schools are the following: NCR-Marulas Central School, Region III-Cabucbucan Elementary School, IV-Canossa College, Elementary Department, Region V-Bahay Community School, Region VI-Cananguan Elementary School, Region XI-San Jose Elementary School, and Region XII-Central Mindanao College, Elementary Department.

The tryout teachers, their subject area supervisors, and the pupils in the tryout classes, also the BEE and TBS monitoring teams are the respondents in this tryout activity.

B. Feedback Instruments

The primary sources of feedback are the following:

1. ***Marginal Notes*** — are comments and suggestions on the send-back pages of the tryout materials following the criteria set in the TBS-TTS Primer in the use of marginal notes. These marginal notes are accomplished alternately by the tryout teachers and the division supervisors following the given tables in the Primer.
2. ***Observation Reports*** — are the first-hand feedback data on the actual use of the tryout materials in the classrooms. These are recorded in the Observation Forms accomplished by the subject area supervisors, and the TBS Testing staff during their observation trips to the tryout classes.
3. ***Interview Schedules*** — are the reactions of the tryout teachers, pupils, and subject supervisors on the special features of the tryout materials; also some general comments on the content, approach, physical make-up of the materials.
4. ***Student Performance Measure*** — refers to readiness or pre-tests and achievement tests administered by the Bureau of Elementary Education Research and Evaluation Group.

The first three sources of feedback make up the minimum set of sources of feedback.

C. The Main Tryout Activities

1. *Orientation of Tryout Teachers and Supervisors*

An orientation on the tryout of the new Grade 3 curriculum in particular, the use of the new instructional materials and the accomplishment of feedback forms will be conducted jointly by the BEE-TBS on 4-9 June 1984 in Baguio City. The tryout materials will be made available during the orientation.

2. *The Actual Tryout of the New Grade 3 Materials*

The instructional materials to be used in the tryout are: ES Math 3 Textbook, Workbook, and Teacher's Manual; ES Pilipino 3 Textbook and Teacher's Manual; ES English 3 Textbook Books 1 and 2, Teacher's Manual and Supplementary Teacher's Guide; ES Civics and Culture 3 Textbook and Teacher's Manual; ES Science and Health 3 Textbook and Teacher's Manual; and Arts and PE 3 Charts and Teacher's Manuals.

The teachers and the supervisors will accomplish the marginal notes and send them as requested to the Textbook Board Secretariat. The supervisors and the TBS Testing Team will observe the tryout classes and accomplish observation reports also are required.

3. *Retrieval of Feedback Data*

The Primer on the use of the marginal notes explains the retrieval scheme. Feedback retrieval goes on for the duration of the tryout period or in some cases, within a specially arranged retrieval period.

4. *Processing of Feedback Data*

Processing of feedback includes collating, analysing, and interpreting feedback data and finally preparing feedback reports on every unit or part of the text materials. The processing of feedback data is undertaken by the Textbook Testing Section of the Textbook Board Secretariat.

5. *Utilization of Feedback for Revision*

The feedback reports are studied by the editors and the writers and whenever possible these are considered in a series of discussion sessions facilitated by the Textbook Testing Section of the Textbook Board Secretariat.

The agreements on revision, arrived at during the discussion sessions became the bases for the revision of the materials.

The Textbook Testing Section
Editorial Division
Textbook Board Secretariat, MECS
in co-operation with
The Curriculum Development Division
Bureau of Elementary Education, MECS

TBS — Testing Form 2

GUIDE FOR OBSERVATION

Tryout Teacher: _____ Textbook Materials on Tryout: _____; _____; Grade & Section: _____

School: _____ Division: _____ Region: _____ Unit: _____ Lesson: _____ Day No.: _____ No. of Pupils: _____ Time of _____
Class: _____**I. APPROACH:** In Column A, indicate the activities in the order as taken up in class. Write the other comments asked for in Columns B and C.

B. How the activities were carried out			
A. Activities observed	As suggested in TM, TE, STC: Put 'a' or an 'x'	With difficulty; Describe difficulty and possible reasons for difficulty	With an alternative approach; Describe briefly
			C. Suggestions or Remarks

II. CONTENT:

- A. Which words, phrases or sentences derived from the text materials are difficult to understand? What alternatives can you suggest?

- B. Which dialogues, selections or other activities derived from the text materials seemed not easy to relate to the pupils' experiences and interests? Which parts of the lessons could have provided better for the infusion of values? How can each be improved?

- C. Was the material allotted for the day's lesson or activity sufficient, too much, or too little?

- D. Which objectives of the day's lesson were not successfully achieved with the use of the text materials? Any suggestions?

- E. Were the learning activities derived from the text materials properly evaluated? Any suggestions?

III. PHYSICAL MAKE-UP AND ILLUSTRATIONS:

- A.. Which illustrations in the text materials were used during the lesson and helped facilitate learning?

- B. Which illustrations in the text materials were used during the lesson but did not facilitate learning? What are your suggestions?

IV. OTHER ASPECTS OBSERVED BUT NOT INCLUDED IN PARTS I, II AND III:

Observer

Designation

Date of Observation

TBS – Testing Form 3A

Ministry of Education, Culture and Sports
Textbook Board Secretariat
Textbook Testing Section

**INTERVIEW SCHEDULE A
FOR TRYOUT TEACHERS AND SUBJECT SPECIALISTS**

Interviewee: _____

Designation: _____ Text materials involved: _____

School: _____

Division: _____ Region: _____ Unit: _____

1. Lesson Sequence Chart (Talahanayan ng mga Aralin)

a) Is the lesson sequence chart easy to use? _____

b) Do you find the sequence of the lessons easy to follow?

c) Any suggestion on how to improve it? _____

2. Introduction (Panimula)

a) Have you read the introduction to the teacher's materials:

b) Is it clear and understandable? _____

c) Which part is not clear? _____

d) Any suggestion on how to improve it? _____

3. How to use this book (Ang Paggamit ng Patnubay ng Guro)

- a) Have you read this part of the teacher's material: _____
- b) Does it provide clear and adequate instructions on how to use the material? _____
- c) Any suggestion on how to improve it? _____

4. Table of contents

- a) Is it accurate? _____
- b) Is the format convenient for your use? _____
- c) Any suggestion on how to improve it? _____

Date of Interview

Interviewer

Designation

TBS — Testing Form No. 3B

Ministry of Education, Culture and Sports
Textbook Board Secretariat
Textbook Testing Section

INTERVIEW SCHEDULE 'B'
FOR TRYOUT TEACHERS AND SUBJECT SPECIALISTS

Interviewee: _____

Designation: _____ Text materials involved: _____

School: _____

Division: _____ Region: _____ Unit: _____

1. Overview (Panawaw)

- a) Have you read the Overview? _____
- b) Does it provide a brief and clear description of what the unit is about? _____
- c) Any suggestion on how to improve it? _____

2. Objectives (Layunin)

- a) Are the objectives specific, clear and measurable? _____
- b) Is each objective provided with the corresponding lesson that allows for its accomplishment? _____

- c) Any suggestion on how to improve the statement of the objectives? _____

191

3. **Materials** (Mga Kagamitan)

- a) Are the suggested materials practical? _____
- b) Are these materials available in the locality? _____
Which materials are not? _____
- c) Any suggestion on what alternative materials to use? _____

4. **Procedure** (Pamaraan)

a) **Introductory Activity** (Panimulang Gawain)

- 1. Does the initial activity stimulate the pupils to learn more about the rest of the lesson? _____
- 2. Is the activity easy to carry out? _____
- 3. Any suggestion on what alternative introductory activity should be included? _____

b) **Development of the lesson** (Panlinang, Paglalahad)

- 1. Do the activities provide for the gradual development of the target skills? _____
- 2. Are the activities sufficient to ensure mastery of the target skills? _____
- 3. Any suggestion on what alternative activities should be included? _____

c) **Practice exercises** (Mga Pagsasanay)

- 1. Do the exercises provide for self-discovery and self-reliance? _____
- 2. Are the instructions clear and specific? _____
- 3. Are the practice exercises sufficient to ensure mastery of the target skills? _____

4. Any suggestion on what alternative practice exercises should be included? _____

d) *Enrichment* (Pagpapayaman)

1. Are the activities stimulating and enriching? _____
2. Do they provide for the practical application of the skills developed in the lesson? _____
Which activities do not? _____
3. Any suggestion on what alternative activities should be included? _____

e) *Evaluation* (Pagtataya)

1. Are there suggested evaluative measures after each lesson? _____
2. Are they easy to carry out? _____
3. Any suggestion on how to improve the evaluative measures? _____

5. *Time Allotment*

- a) Is the time allotted for each lesson realistically sufficient? _____
b) Which lesson needs more time? _____

6. *Infusion of Values*

- a) Are the values of humanism and a sense of nationhood adequately infused in the lesson? _____

b) In which lessons can these values be infused more adequately?

c) Any suggestion about other ways of infusing these values in
the lesson? -----

Date of Interview:

Interviewer:

Designation:

TBS Testing Form No. 4

**A Report on the Observation Visit and Conference
with Tryout Respondents**

in _____ on _____

I. Objectives of the Visit:

II. Places visited; Subject Specialists and Tryout Teachers conferred with:

Regional Office:

Division Office:

District Office:

Tryout School:

III. Significant findings and recommendations: (Use extra sheet if necessary)

A. For purposes of revision

Findings

Recommendations

B. For follow-up on tryout activities

Findings

Recommendations

Submitted by:

Name

Date

Chapter Sixteen

PUBLISHING GUIDELINES

Publishers, including Government Printers, almost always have a set of publishing guidelines, usually called a 'Style Book'. They are really the rules to be strictly followed by all concerned with a particular publisher's work; authors, editors, proof-readers, designers, typesetters, printers.

The Style Books of major publishers are very detailed, often taking up several hundred pages, particularly if they are general publishers. The booklet, 'Publishing Guidelines', produced by the Publications and Information Branch, Education Department of Victoria, Australia, is reproduced, with permission, on the following pages. These guidelines avoid too much detail and are an ideal model to follow, for smaller printing and publishing establishments wishing to produce their own guidelines.

The establishment of a style book, or publishing guidelines, is an essential element in setting up a structure for publishing.

197

PUBLISHING GUIDELINES

**PUBLICATIONS AND INFORMATION BRANCH
EDUCATION DEPARTMENT OF VICTORIA**

Second edition

**Publications and Information Branch
1982**

198

Introduction

This booklet has been prepared to assist authors in the preparation of material which is to be produced by the Education Department of Victoria. Specific advice is given which will enable authors to follow widely accepted conventions in preparing material for publication.

CONTENTS

Introduction

Functions of a publishing service	1
-----------------------------------	---

Presentation of manuscript

1 Manuscripts being typeset	3
2 Manuscripts for camera-ready copy	5
3 Illustrations, diagrams and photographs	7
4 Style	8
5 Avoidance of sexism and racism	9
6 Title page, etc.	10
7 Headings	11
8 Numbering in text	12
9 Page numbering	13
10 Citing references	13
11 Copyright	14

Publication of material

12 Text – typeset or typewritten	15
13 Selection of typeface	16
14 Printing	18
15 Paper sizes	18
16 Binding	20
17 Checking proofs	21
18 International standard book and serial numbers	22

Distribution of material

19 Distribution	23
20 Legal deposit	24

Bibliography	25
--------------	----

FUNCTIONS OF A PUBLISHING SERVICE

Publishers provide editorial, design, production liaison, and distribution services for authors. The services used vary greatly according to the nature of the publication.

1. Editors —

- are the link with the author in controlling the publishing process;
- help authors communicate with their readers and advise on the organization of material;
- ensure the text is consistent in style;
- co-ordinate the work of and liaise with graphic artists, printers and distributors;
- assist with copyright, ISB or ISS number allocation, and legal deposit matters;
- mark up copy for the printer.

Major changes to the text are made only after consultation with the author.

CENTENARY OF BANGALORE

PRIMARY SCHOOL

Celebrations to commemorate the Centenary of Bangalore

Primary School will be held on 9 June 1982.

The ^celebrations will include a roll call and an open day

at the school, a barbe^cue lunch at the Jones's farm

8 AM ^{8 AM} arrive from Bangalore/ and an old-time dance at night. n.s.

All ^{are} former teachers, pupils/ and friends invited. The

organizing ^{graph} committee would be interested in old photo^{graph}

or items of historic^{at} interest ^{that} ~~which~~ ^{could} be used for display.

2. Graphic artists –

- assist authors and editors in the design of publications;
- advise on type faces, type sizes, and line spacing;
- advise on format – the size and shape of the publication, including the number of columns, margin widths, illustration styles and patterns, use of colour, and paper quality;
- prepare original artwork;
- prepare camera-ready copy using artwork and corrected typeset text.

3. Production liaison officers –

- prepare cost estimates;
- expedite production through preparation of necessary documentation and liaison with the Government Printing Office;
- advise on, and when requested arrange for, the distribution of published material;
- allocate ISB and ISS numbers to documents, upon request;
- arrange for employment of appropriate freelance editors and artists, if required;
- monitor printing accounts.

PRESENTATION OF MANUSCRIPT

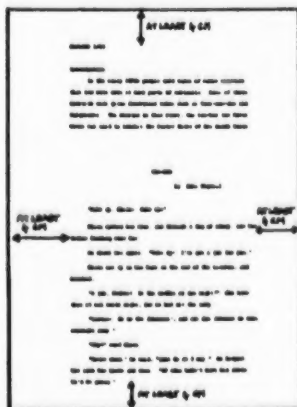
1

Manuscripts being typeset

The author should provide carefully checked manuscript in its final form. Once a manuscript has been typeset, changes should be avoided, since they are expensive and time-consuming. If considerable changes are made, additional costs will be incurred.

1. Material accompanied by only a few or no illustrations

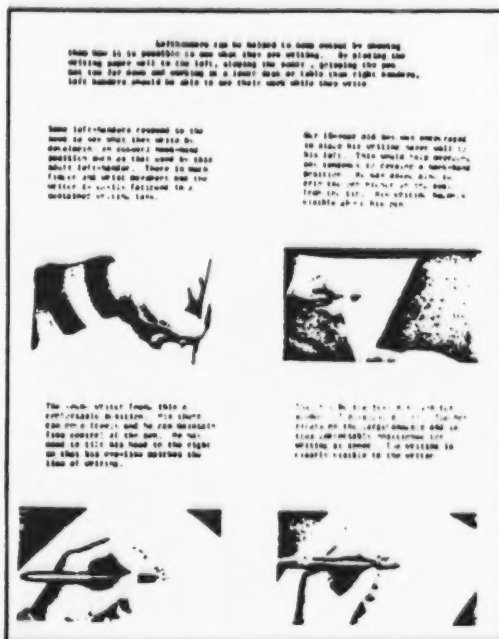
- The manuscript should be typed.
- Type on one side of the sheet only.
- Type with double space (1½ spacing for longer manuscripts).
- Margins at top, bottom and both sides of each sheet should be at least 4 cm.
- Clearly indicate paragraphing – by space or by paragraph indent.
- Use the same size paper throughout (preferably A4).
- Number pages consecutively.
- Note where illustrations should be placed.



2. Visually presented material

When manuscripts include many illustrations, diagrams, or photographs it is helpful if the author plans a layout while writing the text and presents the material to the editor in a visual format, using photocopies or rough sketches of proposed illustrations only, and supplying original photographs, tables, etc. separately. The editor will then be able to check the text against the diagrams or illustrations to ensure that the meaning is clear.

Authors should follow the guidelines in section 1, page 3, but the preparation of heavily illustrated manuscripts may be easier on larger paper.



MANUSCRIPTS FOR CAMERA-READY COPY

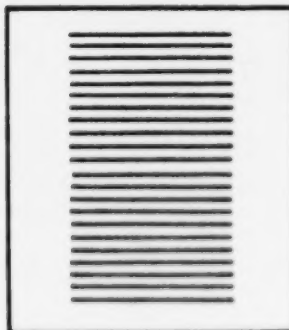
2

This section applies to copy to be printed by photocopying and to camera-ready copy to be printed on small offset printing machines. As the quality of the documents printed will depend upon the quality of the original copy, make sure the original copy is clean and clear.

Give clear written instructions to the typist. The preliminary information should include which typeface is to be used, page size, the width of left-hand margin, the length of line, the size of paragraph indent (if required), spacing (if required) between paragraphs, the fixed position of the first line and the approximate position of the last line on each page, where page numbers are to be placed, etc.

Instructions to typist

Electric typewriter
Ribbon: carbon
Page size: A4
Typeface: Courier 12
Left-hand margin: 30 mm
Length of line: 125 mm
Paragraph indent: 5 spaces
(First paragraph under headings full out)
Space between lines: 1½ spaces
Double space between paragraphs
First line 30 mm from top of page
Last line 25 mm from bottom of page
Page number 15 mm above top right-hand edge of text



A reminder to use carbon rather than fabric ribbon is appropriate. Use an electric typewriter. Corrections should be made using white-out, or the material should be retyped.

This general outline should be reinforced by clear "reminders" throughout the copy, i.e. mark all indents with a # for each space, line spacing (# = single space, 1½#, 2# = double space, 3# = triple space), headings etc. It should not be left to the typist to decide the format.

If possible, the final draft and the reproduction copy should both be typed on paper on which a light blue grid is provided. The editor/designer can then see on the draft where adjustments to material are necessary. The use of a grid for the reproduction copy should also ensure consistency of margin and positioning of text and page numbers.

The following are some general guidelines:

- Using twelve-characters-to-the-inch (elite) face, copy should be single-spaced if lines are not too long (say 125 mm).
- A ten-to-the-inch (pica) face is best for wider lines, but use 1½ spacing.
- Typewriting on A4 size (in pica), reduced to B5 size (i.e. to 84% of the original) at platemaking, is readable and economical.
- Lines should be kept reasonably even.
- Space is needed around headings. Triple space above a capital letter heading and double space below. With underlined capital and lower case headings, leave a double space above the heading and 1½ spaces below it.
- Avoid headings or a single line of a paragraph at the foot of a page.
- Avoid having the last line of a paragraph at the beginning of a page.
- This type of production is appropriate only when a small number of copies is required, or when time is a major consideration. The space saved in typesetting can often allow a more attractive publication to be produced at much the same cost, if the print-run is not too small.

For further information consult chapter 29, Typing for Reproduction, *Style Manual* (third edition), Canberra, Australian Government Publishing Service, 1978.

ILLUSTRATIONS, DIAGRAMS AND PHOTOGRAPHS

3

Usually, and in curriculum documents especially, it is best for the originators of the material to select the illustrative material and show where it can be best placed in relation to the text.

Photographs must be of good quality. For black-and-white reproduction supply 15 cm x 20 cm black-and-white glossy prints — not coloured photographs. For full-colour reproduction 57 mm colour transparencies are desirable.

Drawings may be presented in finished form or in roughs from which graphic artists can work. The manner of presentation needs to be discussed before any artwork commences.

The desk dictionary used as the first point of reference by editors in the Publications and Information Branch is the *Collins Dictionary of the English Language*, first edition, William Collins, Sydney, 1979. The style guide is the *Style Manual*, third edition, Australian Government Publishing Service, Canberra, 1978, together with a statement which lists some exceptions and provisos about the contents of these two books.

Questions relating to style are welcome. Note the following points:

Capitalisation. Avoid over-use of capitals — e.g. use for proper nouns (Tolstoy Technical School of the technical school).

Punctuation. Avoid ambiguity. An open style of punctuation is preferred. Double quotation marks are used, with quotations within quotes being indicated by single quotation marks.

Spelling. Suffix *-ise* rather than *-ize* (agonise); *-or* rather than *-our* (labor), but *-four* not *-for*; retain mute *e* in words such as judgement; *-ct-* instead of *-x-* in words such as connection.

Hyphenation. Use the *Collins English Dictionary*.

AVOIDANCE OF SEXISM AND RACISM

5

Sexism. It is Education Department policy that all resource materials used in schools should be non-sexist. They should avoid sex bias (favoring one sex more than the other, for example, in illustrations) and sex stereotyping (assuming certain activities and forms of behaviour to be appropriate only for males, and other activities and forms of behaviour only for females). In written material avoid structures requiring the masculine pronoun to refer to both sexes. Write in the plural or use the common gender. Avoid third person singular pronouns.

Use people, humans, or human beings, rather than man or mankind, for all persons. Use child or children, teacher or teachers instead of referring to these people as a class with a feminine or masculine pronoun.

Racism. Avoid stereotyping of ethnic groups, underrating the value and roles of different peoples, emphasising exotic differences, condescension and stressing negative attributes.

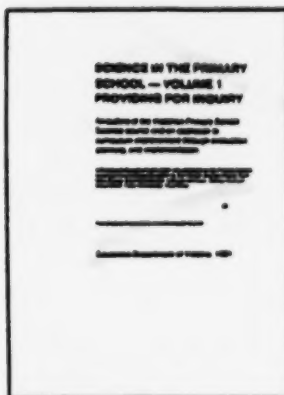
TITLE PAGE, ETC.

6

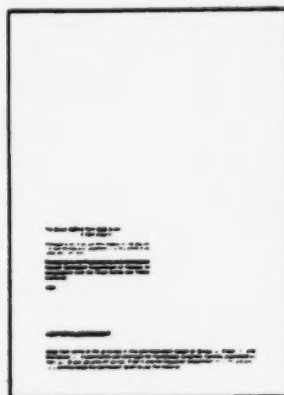
All Departmental publications should show the issuing authority (i.e. Education Department of Victoria, the originating body, and the publisher), the title, date/year of publication, place of publication, and volume and number if applicable. The author's name may appear, if appropriate.

Other bibliographic details will also normally be included:

- name of the series and other titles in the series.
- ISBN or ISSN code.
- details of editions and reprints.
- identification of printer.
- acknowledgements.



Title page



Reverse of title page

HEADINGS

7

Editorial staff will check the consistency of headings used. Usually three or four "weights" of headings are sufficient. Numbers are seldom necessary in conjunction with headings.

In preparing copy for typesetting, it would be advisable to prepare a heading schema; this will provide an opportunity to check headings for consistency, and help ensure that correct heading weights are used. All headings "A" would have the same typeface, all "B" headings another typeface, and so on.



NUMBERING IN TEXT

B

Avoid unnecessary numbering. Where a numbering system is required to subdivide the text, the sequence is usually arabic numeral, lower case letter, then lower case roman numeral.

e.g. 1. Opinions and attitudes

- (a) Introduction
- (b) The questionnaire
 - (i) Structure of the survey
 - (ii) Analysis
- (c) Results
 - (i) Goal-setting and decision-making
 - (ii) Interaction
 - (iii) Professional responsibility
 - (iv) Involvement

2. A content analysis

Occasionally when no order is implied seals (•) may be used. These can emphasise points if used sparingly. Over-use detracts from the appearance of the publication.

e.g. The class programme describes —

- the objectives which are to be achieved;
- the science activities by which the objectives will be achieved;
- the science activities grouped together as units, topics, or themes;
- the classroom techniques to be employed in such things as classroom organisation, questioning, and discipline;
- how to assess, record, and report the children's progress;
- the different ways to conduct the teaching of lessons, excursions, assignments, games, projects, and demonstrations.

For reports, the scheme of numbering each part and each subdivision is useful. For example, 1.20 would be the twentieth subsection of the first part.

e.g. 1.0 INTRODUCTION

1.1 This paper is a statement...

PAGE NUMBERING

9

All publications in book form should be given page numbers. By convention odd numbers refer to right-hand pages, even numbers to left-hand pages (except when the pages are printed on one side only).

The preferred style is to use roman numerals for preliminary pages. The text is numbered in arabic numerals commencing with 1. (An alternative style commences numbering at the title page and numbers throughout in arabic numerals).

Page numbers should be placed level with the outside edge of the text, either above or below the text in a fixed position on the page. (Centred page numbers are not as convenient for the reader).

CITING REFERENCES

10

The following examples illustrate a preferred style for the setting of references:

G.L. Foley & H.K. Foley, "Some Implications of Quasi-erudition on the Educational Taxonomy" in *Pedagogic Pretensions*, 11, 3, New York, May 1980, pp. 109-10.

W.T. James *et al.*, *Manual for Subconscious Learning*, Dark and Night, Melbourne, 1939, ch. 5.

Copyright in any work in any form exists by virtue of the work's existence.

All written material is protected by copyright for fifty years from the death of the author or date of publication (whichever is the later).

Drawings, cartoons, photographs, diagrams, etc., are also covered by copyright.

Permission to reproduce material covered by copyright has to be obtained from the holder of the relevant rights, usually the author or the publisher. This often involves the payment of a fee or royalty to the author or publisher.

In presenting work for publication authors must give the sources of all borrowings and acknowledge the author, title of work, edition, page number, publisher and date of publication. Authors must make sure that all extracts quoted are accurately transcribed. Authors will be required to complete a standard copyright form.

Where necessary, editorial staff will negotiate for permission to reproduce copyright material and will keep copies of letters seeking copyright and letters granting permission to use copyright material.

The Copyright Act refers to style rather than content, both for words and illustrations. In practice, the distinction may be difficult to make, but it should not be assumed that even large alterations to original work is acceptable in law.

Copyright on materials produced by the Education Department is vested in the Crown. Material prepared as part of the tasks of employment set by an organisation or by the Crown is owned by the organisation or by the Crown.

The Publications and Information Branch will handle any requests for reprinting material published by the Branch.

PUBLICATION OF MATERIAL

12

Text – typeset or typewritten

Material may be printed from copy which is –

- (a) typewritten, whether on an electric typewriter or through a word processor, or
- (b) typeset.

Each of these has advantages and disadvantages:

typesetting

- better appearance
- must be paid for
- wide range of type faces available
- variations such as italics, bold, and large (display) type faces usually available
- saves space/paper
- process may take longer than typewriting

typewriting

- lower quality product
- no charge to branch/project team
- limited range of type faces
- variations usually not available
- uses more space/paper
- should take less time than typesetting

Estimates can be obtained for printing based on both typewritten and typeset copy, but in general, for a run of 2000 copies or more, the use of typeset copy is cheaper.

2095	Human Heredity	2095	Human Heredity
2097	We Use Power (6492 We Use Power	2097	We Use Power (6492 I
2910	Is Anybody Doing Anything About	2910	Is Anybody Doing An
3033	And Something More	3033	And Something More
3054	Film Editing: Extras (3417 Film Ed	3054	Film Editing: Extra
	Values)		Values)
3070	It Need Not Happen	3070	It Need Not Happen
3615	People of the Australian Western D	3615	People of the Austr.
3834	A Tool for Teachers	3834	A Tool for Teachers
4004	Metal Makers (6226 Metal Makers'	4004	Metal Makers (6226 I
6290	Mars Minus Myth (6488 Mars Minu	6290	Mars Minus Myth (64

The selection of type faces for textual material is usually made from a range of frequently used types. In general, type faces with serifs, or ends to the main strokes of the letters, produce copy which is more easily read over long passages, such as the pages of a book, than do type faces without serifs (sanserifs).

TYPOGRAPHY

TYPOGRAPHY

Type face
with serifs

Sanserif type face

Some of the type faces commonly used for material being typeset are:

This typeface is MEGARON LIGHT

This typeface is MEGARON LIGHT ITALIC

This typeface is MEGARON MEDIUM

This typeface is MEGARON MEDIUM ITALIC

This typeface is MEGARON MEDIUM CONDENSED

This typeface is MEGARON BOLD

This typeface is MEGARON BOLD ITALIC

This typeface is SOUVENIR BOLD

This typeface is SOUVENIR BOLD ITALIC

This typeface is BASKERVILLE

This typeface is BASKERVILLE ITALIC

This typeface is BASKERVILLE BOLD

This typeface is BASKERVILLE BOLD ITALIC

This typeface is TIMES ROMAN MEDIUM

This typeface is TIMES MEDIUM ITALIC

This typeface is TIMES BOLD

This typeface is TIMES BOLD ITALIC

This typeface is SOUVENIR

This typeface is SOUVENIR ITALIC

This typeface is SOUVENIR DEMI BOLD

This typeface is SOUVENIR DEMI BOLD ITALIC

The size of type is measured in points.

6 Point 9 Point 14 Point 18 Point

24Point 30Point
36 Point

Graphic artists can advise on appropriate type faces.

For typewritten material, there are fewer alternatives:

Word Processing machine, Special Services Division type faces –

Letter Gothic, available in
10 pitch and 12 pitch

Vintage, available in 10 pitch
and 12 pitch

Titan, available in 10 pitch
and 12 pitch

Golf ball typewriter type faces –

This is a Courier 12 typeface

This is a Courier 12 *Italic* typeface

This is an Artisan 12 72 typeface

This is a Letter Gothic typeface

This is a Light Italic typeface

This is a Large Elite 72 typeface

This is an Adjutant typeface

This is a Delegate typeface

This is a Prestige Pica 72 typeface

This is a Bookface Acad 72 typeface

This is a Courier 72 typeface

PRINTING

14

Printing may be by small offset, an inexpensive process usually printing one or two pages at a time, or by imposing pages and printing on larger presses. Typewritten text, printed by small offset, does not necessarily cost less than typeset material printed on larger presses. The selection of the most economical printing process is influenced by many factors, of which the size of the publication, the number of colors, and the number of copies to be printed are among the most important.

PAPER SIZES

15

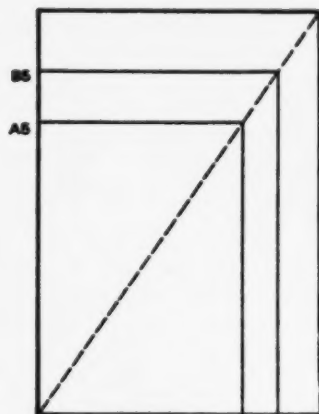
The following is a list of International Paper Sizes A and B series now in general use and their trimmed dimensions:

Series A		Series B	
	mm		mm
A0	1189 x 841	B0	1414 x 1000
A1	841 x 594	B1	1000 x 707
A2	594 x 420	B2	707 x 500
A3	420 x 297	B3	500 x 353
A4	297 x 210	B4	353 x 250
A5	210 x 148	B5	250 x 176
A6	148 x 105	B6	176 x 125
A7	105 x 74	B7	125 x 88
A8	74 x 52	B8	88 x 62
A9	52 x 37	B9	62 x 44
A10	37 x 26	B10	44 x 31

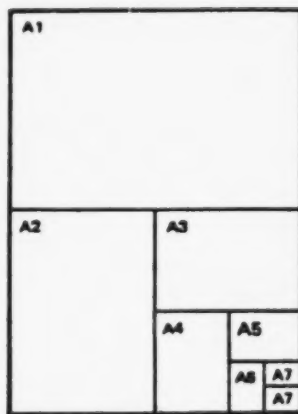
The most commonly used sizes are A4, B5 and A5. A4 is popular for magazines and catalogues. B5 is the preferred size for Commonwealth and State Parliamentary publications and should be a useful size for many curriculum publications. Material typed on A4 size is readable when reduced to B5. Request a reduction to 84% before printing. A5, the size of this booklet, is particularly useful where a single column layout is desired.

Decisions on paper size should take into account the nature of the material being published, the use to which it is to be put, and convenience of storage.

International paper sizes



Relationships between
International Paper
Series A and B



The regular subdivisions
of an International Paper
Series sheet

BINDING

Methods of binding are numerous. Generally *saddle-stitching* (staples through the spine) is the most economical, effective, and efficient method for up to 96 pages. It can be used for many more pages but it becomes less effective as the number of pages is increased.

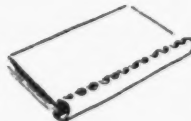
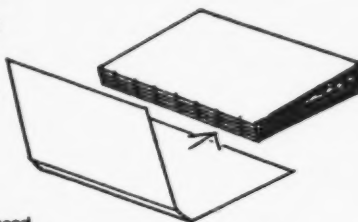
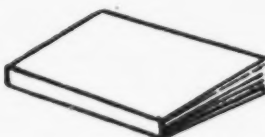
For more than 100 pages *perfect binding* is suggested and it is important to specify that *hot melt* be used for thicker books. A decision to perfect bind or not has implications affecting body and cover stock. The surfaces to be glued must not be printed upon.

Books of more than 200 pages are effectively bound using a "sewn with drawn-on cover" process.

Hardbound books are rarely produced within the Department due to the substantial cost involved.

Further alternatives include comb binding, spiral binding and other forms of loose-leaf binding. These are usually less economical but may be particularly suited to the needs of a specific project.

16



CHECKING PROOFS

17

After material has been typeset a copy is sent to the author for checking. Corrections should be made in clear handwriting on this proof. Minor changes only are expected, since resetting will add greatly to costs. Check that all material has been included.

Other copies of the typeset material are checked by editors and departmental administrators.

Many changes are taking place in language education today, as always, and there are many newcomers to the field who might appreciate a defining of terms. The following is an overview of English language teaching methodology with some general conclusions of a somewhat "eclectic" nature.

Grammar-translation Method

The Grammar-translation method, sometimes called the "traditional" method, consisted of the following basic tenets:

- Read, then translate (into the student's native language).
- Learn (often, copy into your notebook) the rules (again, in the student's native language).
- Memorize (list of) vocabulary items and their meanings (in the student's native language).
- Write sentences (in the target language), using the memorized rules and vocabulary.
- Read "good" literature (if) master how stylistically or grammatically complex or archaic, history, and other aspects of the target language culture.

Drop initial through 3 lines;
Fourth line to be full out /

-1-

"/ Take back "meth" and equalize spacing /

Arabic numeral 1 / l.c. /

Close up,
Taking back "meth" /

of 9
of 9
of 9
of 9

X

E /

Trs / ==

INTERNATIONAL STANDARD BOOK AND SERIAL NUMBERS 18

The International Standard Book Number (ISBN) and the International Standard Serial Number (ISSN) provide a short and unique identification for every publication. The numbers are used in library work, in bibliographic record-keeping and in bookselling and publishing.

International Standard Serial Numbers should be allotted to and printed on all serial publications, preferably on the top right-hand corner of the front cover.

An International Standard Book Number should be assigned to any "book" of five or more pages, preferably on the reverse of the title page.

Publications and Information Branch applies the appropriate numbers to all material it publishes and can allot numbers for other Departmental users.

Distribution

In consultation with the client division and the publishing branch or section, authors should make an early decision regarding distribution of material — the agency to be employed, the number of copies to each recipient, etc. Make the necessary arrangements well ahead of publication date.

Distribution may be handled by the Government Printing Office, by Store Branch, by the Branch originating the publication, by the mail room staff in the Special Services building, or by the Central Registry of the Education Department at 2 Treasury Place. Central Registry is best able to handle small enclosures in mail being sent to all post-primary schools. Staffing limitations may preclude major distributions being carried out when and as wanted. Requests for mail room or Central Registry distribution should be made formally on a face paper through the Deputy Administration Officer of Special Services Division.

When copies of publications are available for sale, distribution is usually handled by Stores Branch, in the case of curriculum guides, and by the Government Printing Office in the case of periodicals. The Government Printing Office imposes an additional charge for this service. If this method of distribution is to be used the Government Printing Office must be advised at the time that the estimated cost of the publication is being established so that distribution costs are included in the estimate and sufficient funds are made available.

Promotion procedures such as press releases, advertisements in Departmental and other educational publications, "launching parties", interstate contact, etc. should be considered in the light of advantage that may be accrued. When a production is for sale, some forethought must be given to its advertisement and marketing.

LEGAL DEPOSIT

20

One copy of every publication must be sent to the Legal Deposit Section of the National Library, Canberra, and of the State Library of Victoria, Melbourne. Publications and Information Branch deals with this automatically for all material it publishes.

BIBLIOGRAPHY

Bibliography

Hanks, Patrick (ed.). *Collins Dictionary of the English Language*.
Australian edition. Collins, Sydney, 1979.

Pitson, John (ed.). *Style Manual for Authors, Editors, and Printers
of Australian Government Publications*. 3rd ed. Australian
Government Publishing Service, Canberra, 1978.

Fowler, H.W. *A Dictionary of Modern English Usage*. 2nd ed.
Oxford University Press, London, 1968.

Partridge, Eric. *Usage and Abusage, a Guide to Good English*.
Hamish Hamilton/Penguin Books, London, 1957/1969.

Oxford Dictionary for Writers and Editors. Oxford University
Press, London, 1981.

Chapter Seventeen

MONITORING DISTRIBUTION (a pictorial report)

by Florina S. Espiritu Santo, Chief, Field Co-ordinating Unit, IMC, University of the Philippines, Quezon City, Philippines

Introduction

At all stages of the educational materials development process, regular evaluation will be required. Field visits are an extremely important means of evaluation for those responsible for the the preparation, production and distribution processes. Here one can see theory put into practice, experience the realities, begin to understand some of the problems, develop a closer relationship with those working in the field, and build up their enthusiasm and morale.

A field visit usually requires some form of report. The report that follows is not only a valuable document for directors, administrators and planners of a project, but it plays an equally important role in developing human relations and staff efficiency by acknowledging the work of the field officers. Much of the material also

provides factual, but digestible, information for the general public; thus performing a valuable public relations function.

This may be observed in the sample pages that follow. The report describes the outcomes of a visit to two regions in the Philippines to monitor the effectiveness of textbook distribution. It is very informal, providing factual statements and data, along with descriptions of personalities, anecdotes, and a summary of the reactions of teachers and supervisors on the receipt of their new textbooks. It also illustrates the varied methods and transportation used to carry out the distribution process.

OBE-1983 MONITORING

Pictorial Report
in

A. Region VI (Western Visayas) **ILOILO CITY**
and

B. Region VII (Central Visayas) **CEBU CITY**
from MAY 30 - JUNE 16, 1983

Submitted by: *Florina S. Espiritu Santo 6/27/83*
FLORINIA S. ESPIRITU SANTO
Chief, Field Coordinating Unit

242

NOTED: *M. Aguila*
REUBEN M. AGUILA
Chief, Distribution Division

USE MONITORING AREAS

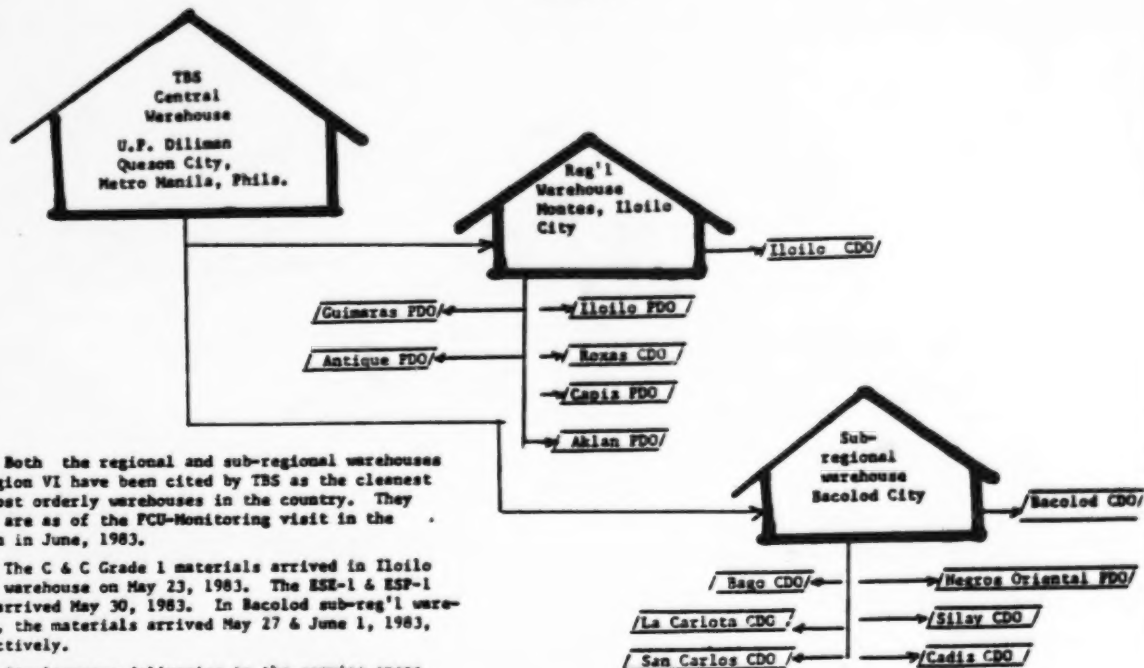
REGION VI, ILOILO CITY

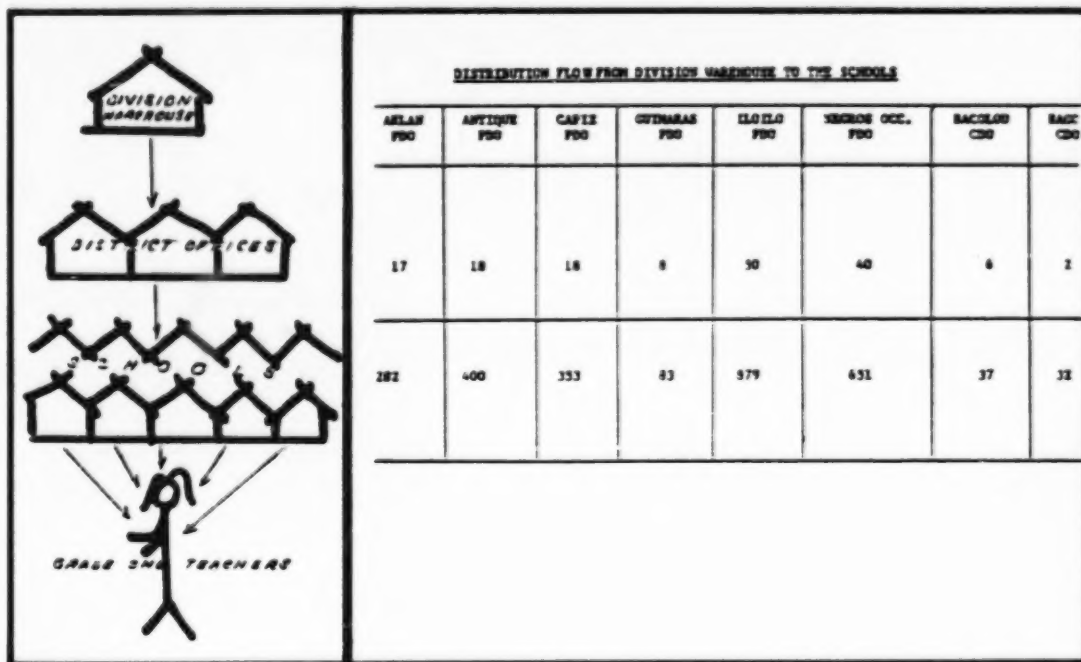
REGION VII, CEBU CITY



DISTRIBUTION FLOW

REGION VI







AT THE REGIONAL WAREHOUSE' MECSRO VI, Iloilo City

Ms. Judith Granada, OIC in Region VI when I reported to the regional office on 30 May 1983 and Mr. Jorge Duron, Asst. Reg' I supply officer, conferring at the regional warehouse after I presented my letter of introduction. It stated most of all, the distribution of materials for the New Elementary School Curriculum in Grade I before the opening of classes this school year pursuant to the Minister's instructions.

In the absence of the Regional Director, Dr. Antonio V. Tanchuan and the Elementary Education Division Chief, Dr. Constanca C. Pado, Ms. Granada mobilized the warehouse personnel with the assistance of Mr. Duron, to expedite deliveries to consignees. She utilized all communication facilities to monitor all division offices of region VI. She authorized Mr. Duron to accompany me to all my destinations in the region.

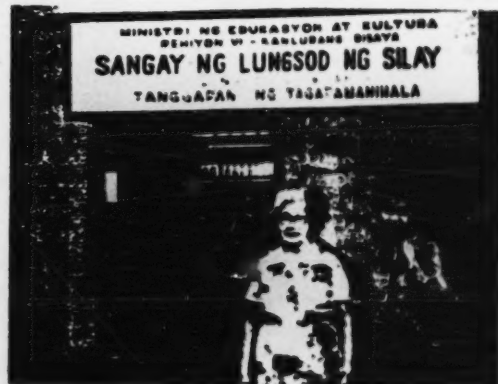
With the co-operation and support extended me by the officials and all warehouse staff in region VI, I was able to accomplish my objectives in the 14 provinces and cities in only 7 days.



Ms. Granada and Mr. Duron welcomed the new materials, ESE-I and ESP-1 STGs on 30 May 1983 at the regional warehouse in Montes. They were delivered just in time of my arrival. The C & C I materials were received on 23 May 1983. To minimize delivery expenses they waited for the STGs before moving out the C & C I.

Mr. Duron's warehouse in Montes, Iloilo City, has been cited cleanest and most orderly warehouse throughout the country. It is properly maintained and managed. I am glad to say that:

"It has the atmosphere of a warehouse because of the stocks it holds but you could breath freely inside which I could not often do in all warehouses I have been in the country. The stocks are not crowded, they are properly arranged and labeled. This warehouse has practically no dust at all."



Mrs. Loreta Cantiller, Supply Officer of Silay City made possible the accomplishment of the FCU OPERATIONS: BALIK-ESKUWELA 1983 in the division in the absence of Supt. Pura Benedicto. She gathered all signed certificates of receipts from the district custodians and supervisors of Silay CDO and turned them over to me during my visit.

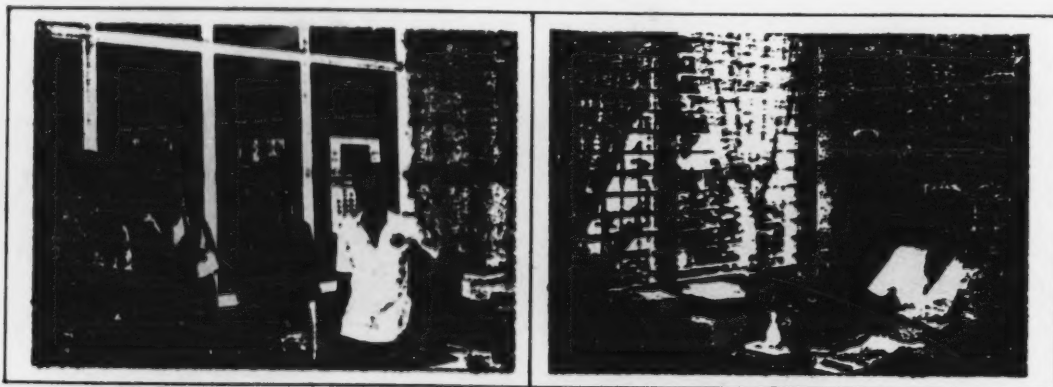


Supt. Susana Cabahug, the supply officer and fiscal clerk
Mandaue City

The new superintendent of Mandaue City is Dr. Susana Cabahug. I think she is now the youngest superintendent to date. She has just assumed the superintendency.

Among the youngest school superintendents are Dr. Elenita Tumala of Camiguin and Supt. Eladio Dioko of Cebu.

CONSULTING AUDITORS IN REGION VII



In Region VII, consulting auditors was a must during the OBE-1983 monitoring. School officials have not released sub-allotments of funds for distribution. Since funds are vital factor in achieving her goal, the FCU monitor sought the assistance and support of auditors whom MECSRO officials reported to have something to do with the release of funds.

Shown above are Auditors Urbizondo and Tan of Negros Oriental and Dumaguete City, respectively, from whom I requested support in the implementation of the NESC Program this school year. Auditor Urbizondo was the Auditor who told me that the COA has actually abolished the "watchdog image" to help hasten the operations in various government agencies. However, he said that the problem that puts back the same delays is the practice of officials to place as usual the responsibility on COA in the utilization of funds. While the COA involvement in operations is done away, auditors would still welcome agency heads seeking their opinions on fiscal matters.

Also shown above are supply officers Estanislao and Abraham Valencia. One of the districts the FCU monitor visited was the district of Valencia of Negros Oriental.



OFFICE OF THE SUPERINTENDENT

The supply officer reporting arrival of the New Elementary School materials to the superintendent and assistant superintendent.



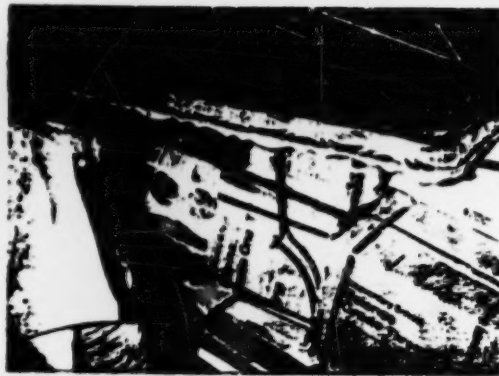
DOCUMENTING DISTRIBUTION OF NESC MATERIALS

Division supply officers prepare official forms like BPS Form 101 for acknowledgement by the district recipients.

They also prepare BPS Form 100 for records and control.

THE PROPERTY AND SUPPLY OFFICE

The staff preparing allocation list per district and segregating NESC materials by allotments.



LOCAL TRANSHIPMENT

BY PUSHCARTS

Because the gate of the school leading to the Textbook warehouse in Montes where trucks pass is still closed at 6.00 a.m., pushcarts is used to load materials from warehouse to hauling trucks. On May 31, 1983, a pushcart was used to load NESC materials and other textbooks in the truck at the visitor's gate at about 6.00 a.m. for Antique, Roxas and Capiz.

A pushcart is also usually used by nearby service areas to withdraw materials from the warehouse.

BY TRICYCLES

In Aklan, tricycles were used to distribute Project textbooks and materials to the districts.

During the OBE-1983 Monitoring in this division, about 4 tricycles were used to distribute the NESC materials to the districts. Despite the rain, distribution went on during the visit.

NOTE: The sun rises early in Region VI. At 6.00 a.m., the day is as bright as in Metro Manila at 8.00 a.m.

BY RP-VEHICLE

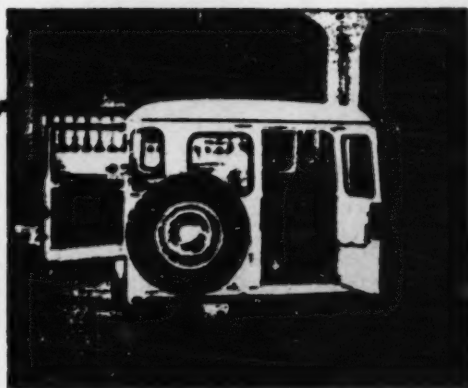
In consideration of Director Aprieto's request to provide FCU monitor a vehicle in his letter of introduction, supportive officials allowed the use of RP-Toyota car during the OBE-1983 monitoring by the field co-ordinators.

The Toyota car was also used to deliver NESC materials to districts and schools. It could hold 30 boxes at a time good enough to service 4 districts.

BY THE STUDENTS

Especially when classes have opened, custodians utilize the services of male students to get materials from the district offices.

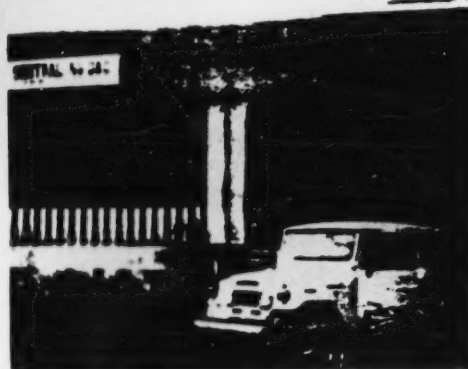
In Sapián, the students who were on seminar were requested to unload the materials from the RP-car.



BY MOTORCYCLES

Personally-owned motorcycles are often used by teacher-custodians to withdraw materials from the district offices which are usually in the central schools.

In Dumaguete City the FCU monitor was forced to ride on a motorcycle with the supply officer in district visitation in the absence of RP-vehicle.





DISTRIBUTION TO DISTRICTS

Ms. Hermenegilda Almalbis of Capiz personally supervising unloading of NESC materials at IVISAN district.

While custodians acknowledge materials on per carton basis, district supervisors are cautious. They count them one by one before signing the receipts.



After counting the materials, the district supervisor signed the receipt.



The district custodian of Dao District acknowledging receipt of NESC materials.



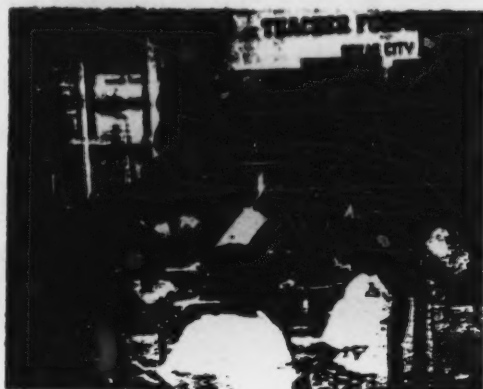
HOW TEACHERS RECEIVED THE NESC MATERIALS



"ENTHUSIASTIC"



"VERY HAPPY"



"ANXIOUS"



"CURIOUS"

REFERENCES

Altbach, Philip G. "Key issues of textbook provision in the third world", Prospects (UNESCO, Paris) 13(3):315-325, 1983. 11 p.

Bolibaugh, J.; R. Ganeff; J. Gomel; B. Kimmins; J. Overton and W. Zachau. Guidelines for the preparation, production and distribution of textbooks. Paris, UNESCO, 1980. 80 p. (Educational Financing - Occasional Paper No.5)

At the request of the World Bank, UNESCO undertook this study in 1977, the report being reprinted as the fifth in this series of occasional papers. It identifies the prerequisites and estimated costs of establishing a national system for the preparation, production and distribution of textbooks.

After a brief introduction, the report deals with management considerations; manuscript and production preparation; and then, at some length, with distribution problems, organization and financing. The

report concludes by emphasizing that the publications process is a complex enterprise requiring inter-disciplinary co-operation and careful planning. Apart from the problem of lack of qualified staff, another is likely to be ... 'a weakness in the structures required to programme and co-ordinate the entire scheme of production, preparation and distribution and the use of materials, in the framework of a sound educational policy'.

The greater part of the report is taken up with 16 annexes, two appendices and a comprehensive selected bibliography with some annotations. The bibliography includes general publications and then specific areas under the headings: paper, educational requirements, technical aspects, editing, evaluation and copyright.

The annexes illustrate the types and amounts of equipment, facilities, supplies and staff required to produce a given number of textbooks and other printed materials annually. A number of assumptions have been made concerning such variables as annual enrolment growth, drop-out rates, titles and numbers of pages per grade level and average annual loss of textbooks. These are given under four models based on alternative requirements.

Appendix I gives a short discussion on the simultaneous publishing of books in several languages. Appendix II describes area requirements for the storage of paper,

textbooks, pallets, shelves, crates and boxes. Requirements for administration are also considered. Finally the minimum working areas required around each machine are also given.

This publication is recommended for planners, administrators and publication managers in countries that are embarking on, or have already implemented, publishing programmes. The guidelines illustrate all aspects of the management and financing of textbook production. They form an excellent basis for evaluating existing systems and planning future development.

Natividad, Pablo E. "Philippines Country report", Textbooks and reading materials, vol. III. Bangkok, UNESCO, 1983. p. 133-151.

Orivel, Francois. Cost analysis of the Philippines Textbook Project; report. Paris, UNESCO, 1979. 29 p.

Prepared at the request of UNESCO, this report describes the background of the Philippine Textbook Project from the point of view of its history, organization and management. However its main function is to examine the cost-effectiveness of this World Bank funded project.

The cost analysis methodology used is that recommended by the various conferences used by UNESCO, organized according to:
(1) fixed costs in production (writing,

editing) and administration; and (2) variable costs in production (printing division of TBS, private printers) and distribution (distribution and warehousing).

Written in layman's language, the document is clearly and logically presented. The report concludes with a short evaluation of the functioning and success of the project, including unit costs, appraisal of production costs, textbook quality and system management.

[APEID] Regional Seminar on Textbooks and Reading Materials, Wellington, New Zealand, 4-12 October 1983. Textbooks and reading materials; report. Bangkok, UNESCO, 1983. 3 v. (Asian Programme of Educational Innovation for Development)

Contents: -v. 1. The 'Ready to read' project - the New Zealand experience.
-v. 2. Outcomes of the Regional Seminar.
-v. 3. Production and utilization.

[APEID] Sub-Regional Workshop on the Development of Systems and Structures for Producing Textbooks and Other Related Teaching/Learning Materials, Bangkok, 17-27 September 1984. Textbooks and related teaching/learning materials for primary classes; final report. Organized jointly by the Department of Curriculum and Instruction Development [Ministry of Education, Thailand] and UNESCO Bangkok, 1985.

72 p. (Asia and the Pacific Programme of Educational Innovation for Development)

[APEID] Regional Seminar on the Production and Distribution of Textbooks and Other Related Teaching/Learning Materials, Manila, Philippines, 12-22 August 1985. Production and distribution of textbooks; report of the Seminar. Bangkok, UNESCO, 1985.

34 p. (Asia and the Pacific Programme of Educational Innovation for Development)

[APEID] Sub-regional Seminar on the Production and Distribution of Textbooks and Other Related Teaching/Learning Materials, Nuku'alofa, Tonga, 26 August - 5 September 1985. Textbook production and distribution in the Pacific; report of the Seminar. Bangkok, UNESCO, 1985.

68 p. (Asia and the Pacific Programme of Educational Innovation for Development)

LIST OF SELECTED APEID PUBLICATIONS RELATING TO TEACHING/LEARNING MATERIALS

- * *Designing instructional materials for general education and teacher training: a portfolio of experiences in Asia and Oceania.* 1980.
- * *Developing instructional materials for productive skills; report.* 1980.
Inventory: low-cost educational materials; how to make, how to use, how to adapt (three volumes). 1980, 1982, 1984.
- * *In-service teacher education: development innovatory strategies and instructional materials; report.* 1980.
- * *Development of curricula and instructional materials with focus on mechanical and civil/building subjects; report.* 1980.
- * *Development of curricula and instructional materials with focus on electrical and electronic subjects; report.* 1981.
- * *Guidelines for repackaging multi-media resources.* 1982.
- * *Developing materials for biology teaching; report.* 1982.
Chemistry curriculum and teaching materials; report. 1982.
Business and commercial education: development of curricula, instructional materials, physical facilities and teacher training; report. 1982.
Distance education: exemplar training materials. 1984.
Textbooks and reading materials; report (in three volumes). 1984.
 Vol. I : The "Ready to Read" Project – the New Zealand Experience
 Vol. II : Outcomes of the Regional Seminar
 Vol. III : Production and utilization
Instructional materials for elementary mathematics; final report. 1984.
(obtainable from the National Institute for Educational Research, 6-5-22, Shimomeguro, Meguro-ku, Tokyo, Japan).
Textbooks and related teaching/learning materials for primary classes; report. 1985.
Production and distribution of textbooks; report. 1985.
Textbook production and distribution in the Pacific; report. 1986.
Preparing multi-media teaching materials; a source book. 1986.

EDUCATIONAL
PUBLISHING

The Asia and Pacific Programme of Educational Innovation for Development (APEID) has as its primary goal to contribute to the building of national capabilities for undertaking educational innovations linked to the problems of national development, thereby improving the quality of life of the people in the Member States.

All projects and activities within the framework of APEID are designed, developed and implemented co-operatively by the participating Member States through over one hundred national centres which they have associated for this purpose with APEID.

The 25 Member States participating APEID are Afghanistan, Australia, Bangladesh, China, Fiji, India, Indonesia, Iran, Japan, Lao People's Democratic Republic, Malaysia, Maldives, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Samoa, Socialist Republic of Viet Nam, Sri Lanka, Thailand, Tonga, Turkey and Union of Soviet Socialist Republics.

Each country has set up a National Development Group (NDG) to identify and support educational innovations for development within the country and facilitate exchange between countries.

The Asia Centre of Educational Innovation for Development (ACEID) an integral part of the Unesco Regional Office for Education in Asia and the Pacific in Bangkok, Co-ordinates the activities under APEID and assists the Associated Centres (AC) in carrying them out.

The programme areas under which the APEID activities are organized during the third cycle (1982 - 1986) are:

1. Universalization of education: access to education at first level by both formal and non - formal means;
2. Education for promotion of scientific and technological competence and creativity;
3. Education and work;
4. Education and rural development;
5. Educational technology with stress on mass media and low cost instructional materials;
6. Professional support services and training of educational personnel;
7. Co-operative studies and innovative projects of research and research -based experimentation related to educational development.

